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2. Sculptures.
3. Architectural drawings and models.
4. Engravings, lithographs, &c.
5. Photographs.
6. Works of art not specified.

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7. Educational appliances, models of schools, school furniture and books.
8. Maps, charts, and geographical apparatus.
9. Specimens of work done by pupils in schools.
10. Gymnasia.
11. Stationery and artists' materials.
12. Printing and book-binding.
13. Photographic apparatus, chemicals, and other appliances.
14. Musical instruments.
15. Scientific instruments.

SECTION C.—*Health*—

16. Systems of drainage.
17. Appliances connected with sanitation and hygiene.
18. Drugs and medicines.
19. Surgical instruments.
20. Hospital appliances.
21. Ambulances.
22. Other objects connected with health

SECTION D.—*Furniture and other objects for the use or decoration of dwelling-houses and other buildings*—

23. Furniture and upholstery.
24. Glassware of all kinds.
25. Stone utensils, pottery, porcelain, and earthenware.
26. Metalware, hardware, and cutlery.
27. Clocks, watches, and their accessories.
28. Brushware.
29. Basketware.
30. Apparatus and processes for cooling, heating, and lighting.
31. Decorative work, including carving and art-ware.
32. Carpets, hangings, tapestry, furniture stuffs, matting, paper hangings.
33. Marble and alabaster.
34. Bronzes, ornamental work in gold, silver, and other metals.
35. Toys.
36. Other household utensils and appliances.
37. Camp equipment, including tents.

SECTION E.—*Fabrics, including apparel, toilet requisites, and other objects of personal wear or use*—

38. Cotton fabrics.
39. Wool fabrics.
40. Silk fabrics.
41. Jute fabrics.
42. Other fabrics.
43. Mixed fabrics.
44. Shawls.
45. Fancy work.
46. Apparel and haberdashery.
47. Boots, shoes, and slippers.
48. Hats and caps.
49. Umbrellas and parasols.
50. Jewellery and precious stones.
51. Perfumery.
52. Objects not specified.

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55. Oil-seeds.
56. Oils.
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58. Hides, horns, hair, bristles, &c.
59. Leather and manufactures of leather.
60. Cotton, raw, and thread.

SECTION F.—*(Continued.)*

61. Cotton, manufactures.
62. Silk, raw, cocoon and thread.
63. Wool, raw, and yarns.
64. Jute, raw, and yarns.
65. Manufactures of jute.
66. Coir and manufactures therefrom.
67. Other fibres and manufactures therefrom.
68. Paper.
69. Ivory, tortoise-shell, sponge, and shells.
70. Materials for baskets, wicker and plait work.
71. Cement.
72. Building materials, exclusive of cement.
73. Lac.
74. Gums and resins.
75. Indigo.
76. Other dyeing and colouring materials.
77. Colours, paint, varnishes.
78. Tobacco.
79. Chemicals.
80. Materials used for bleaching, tanning, and currying.
81. Other products and manufactures not specified.

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98. Spinning, weaving, and rope-making.
99. Paper-making.
100. Pressing, type-making, ruling, bookbinding.
101. Pressing and baling.
102. Fire-engines, extincteurs, pumps, cranes, gauges, registering instruments.
103. Electro-plating.
104. Brewing and distillation.
105. Manufacture of perfumery.
106. Manufacture of porcelain, earthenware, and glass.
107. Means of producing artificial light.
108. Sewing machines.
109. Cotton printing.

SECTION II.—*Food products—*

110. Tea.
111. Coffee.
112. Sugar.
113. Spices.
114. Chocolate and cocoa.
115. Bread stuffs and articles made therefrom.
116. Arrowroot, tapioca, sago.
117. Butter.
118. Ghee, lard, and other fatty substances.
119. Preserved meat.
120. Preserved soup.
121. Preserved fish.
122. Preserved fruits and vegetables.
123. Nuts.
124. Confectionery.
125. Jams and jellies.
126. Honey.
127. Essences and extracts.
128. Pickles, sauces, chutneys, and curry-powders.
129. Ale, beer, and porter.
130. Cider and perry.
131. Wines and liqueurs.
132. Spirits.
133. Cordials and syrups.
134. Aërated and mineral waters.
135. Vinegar.
136. Other provisions not specified.

SECTION I.—*Agriculture and Horticulture*—

137. Collections of agricultural products.
138. Ditto horticultural ditto.
139. Processes, implements, and machines use in cultivation.
140. Processes, implements, and machines applied to agricultural and horticultural products.
141. Processes, implements, and machines used for irrigation.
142. Garden furniture, fountatins.
143 Manures.

SECTION K.—*Ethnology, Archæology, and Natural History*—

144. Ethnological collection.
145. Archæological collection.
146. Weapons and implements of the chase.
147. Implements connected with fishery.
148. Collections of animals stuffed, &c.
149. Other natural history specimens.

CONDITIONS AND REGULATIONS FOR EXHIBITORS.

1. The introduction of dangerous substances is strictly prohibited.
2. Packages intended for the Exhibition must bear the printed official labels, which will be furnished to the exhibitors, and must be consigned as directed.
3. No sketch copy, or reproduction of any exhibit may be taken without the special permission of the Exhibitor and the Committee. The right of permitting general views is, however, reserved by the Committee.
4. An official catalogue will be published.
5. Every facility will be afforded to Exhibitors and their agents in connection with the transport, display, sale, and care of their exhibits.
6. The utmost precautions will be taken to preserve exhibits from injury and to guard the buildings. No responsibility can be undertaken for damage or loss. Exhibitors should make their own arrangements for effecting insurances.
7. The arrangements with reference to machinery in motion will form the subject of special regulations.
8. Subject to official confirmation, agents can be appointed by Exhibitors.
9. Exhibitors must defray all charges for space, packing, forwarding, receiving, unpacking, and repacking of goods, and all other incidental charges.
10. All arrangements for the display of exhibits, including special constructions, stands, cases, tables, shelves, and the mounting of machinery and apparatus must be carried out by the Exhibitors at their own cost and in accordance with plans officially approved.
11. Articles remaining unsold at the close of the Exhibition must be removed within 30 days; after that time they will be removed and stored at the risk and expense of the owner.
12. Exhibitors must conform to all rules and regulations.
13. Applications for space, with full particulars of the intended exhibit, must be made at the office of the Secretary or official agent before the 1st of August 883. Necessary forms and all information may be obtained of the Secretary or any of the official agents.
14. The ordinary charge for space will be two shillings for each of the first twenty square feet and one shilling for every additional square foot; but Exhibitors desiring a frontage to any main avenue for their cases can obtain it on payment of an additional five shillings per foot of such frontage, irrespective of depth. A passage of from two to three feet will be left round each case where desired, and Exhibitors desirous of having spaces against the wall should mention the fact at the time of application. All applications must be accompanied by payment of the full amount for the space required.
15. The general reception of articles in the Exhibition buildings will commence on or before the 1st of October and cease one week before the opening, after which date no exhibits can be received and all vacant spaces become forfeited.
16. Certificates of gold, silver, or bronze medals will be awarded to Exhibitors; a Special Jury will be appointed for this purpose.
17. The Exhibition will be constituted a bonded warehouse, where dutiable exhibits can remain without payment of duty until they are sold. Calcutta is a free port, except as regard spirits, wines and liquors, cider and other fermented liquors, ale, beer and porter, salt, opium, arms and ammunition.
18. Articles may be sold during the currency of the Exhibition, but cannot be removed without the special permission of the Committee.
19. An entrance card (not transferable) will be delivered gratis to every Exhibitor.
20. It is intended to keep the Exhibition open daily from 7 A.M. to 6 P.M. and from 8 P.M. to 11 P.M., from on or about the 4th of December 1883 until its close, on or about 1st of March following.

ADDITIONAL REGULATIONS.

I.—ATTENDANTS' PASSES.

1. All Exhibitors or Representatives shall submit to the Secretary a list of attendants required by them during the currency of the Exhibition, so that their names may be entered in the Attendants' Pass Book and Cards of admission issued to them.

2. Attendants will have to attend at the Ticket Office every Saturday between the hours of 8 A.M. to 10 A.M. for the purpose of receiving their passes, without which they cannot enter the grounds or buildings. Any person failing to do this between the hours above mentioned, will have to bear the expense of the entrance fee until the following Saturday.

3. All attendants will have to obey any orders given to them by the Foreman or Staff Officials relating to the sweeping, dusting and cleaning of their courts, or any other matters appertaining to the proper and regular maintenance of order in the building.

II.—RECEPTION OF EXHIBITS.

1. The Reception of Exhibits will begin on Monday, 1st October 1883, and cease on the 27th November 1883. The hours of reception will be from 6 A.M. to 4 P.M.; every facility will be given to Exhibitors for the unloading of Exhibits and getting them into their proper places, but the labour must be undertaken by the Exhibitors themselves.

2. The Trucks will have to be unloaded at once and the goods placed in the bays, so as to allow of no delay or block of the main avenues.

3. All refuse will have to be swept out of the various bays in a heap in the avenues, the last thing before the Exhibition closes, or not later thang 6-30 A.M. the next morning, so as to facilitate the general cleaning of the buildings before the beginning of the day's work.

III.—WORKMEN'S PASSES.

1. These Passes will be issued at the Ticket Office either for the week or the day, which will admit the bearer twice each day on an application being made to the Secretary stating the number and requirements of the men.

2. If these tickets should be found to be made use of for other purposes than those stated in the above rule, the tickets will be cancelled, and no further ones issued to the same workman upon any account whatever.

IV.—SALES AND DELIVERY.

1. All Exhibits sold and delivered during the currency of the Exhibition must be duplicates, or made in the Exhibition and shewn by Manufacturers. Notice of intention to apply for a License to sell must be given at the time of entry, and the Executive reserve to themselves the right to refuse or discontinue any license.

2. The rental charge per week is 30 Rupees, payable in advance. Payment being made at the Secretary's Office every week on Saturday between the hours of 9 A.M. and 11 A.M. Any stall-holder failing to do so, will loose his right of selling, and his attendants' passes will be immediately stopped.

V.—LIGHTING.

1. The general lighting of the building is undertaken by the Executive, but Exhibitors who wish for special lights round their cases must apply through the office to the Manager of the Oriental Gas Company for all such additions, which in all cases will be at their own cost. In all such cases the use of the Main will be granted free, and the charge for Gas will be made at the rate of so much per hour per burner. All cost of the fittings in such cases must be borne by Exhibitors.

2. A Gas Collector will attend every Saturday to collect the amount due, and to facilitate matters, it is desired that all Exhibitors if not personally present, should leave with their attendants the amount due. Any person not paying the claim, will forfeit the use of the Main.

VI.—POWER.

Motive Power will be supplied free of charge to all Exhibitors, who give notice at the time of making their entry, but the cost of loan of the shafting and couplings will be charged to Exhibitors according to the amount they use.

Exhibitors or their Representatives must call at the Secretary's Office and report their requirements both as regards shafting and horsepower immediately on arrival.

VII.—CARRIAGE.

Conveyance of Goods for Exhibition. A satisfactory arrangement has been made with the Port Commissioners and Tramway Company for the conveyances of all cases, packages and goods from the ships' side to the Exhibition ground and also for the removal, storing and returning empty cases on the close of the Exhibition.

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Section B.

EDUCATION AND APPLICATION OF LIBERAL ARTS.

(CLASSES 7 to 15)

Bible Society, 23 Chowringhee Road, Calcutta.—Bibles and other Christian books in oriental languages published by The Religious Tract Society, The Calcutta Vernacular Education Society, and their Indian Auxiliaries, &c. Common Depôt: Bible and Tract House, 23, Chowringhee Road; being the third house north of the Exhibition buildings.

Bysack (Doyal Chand), 6, Lower Circular Road, Bhowanipore.—Vernacular maps

De Negri and Co., 6, Lower Circular Road.—Millboards, pasteboards, cards, and fancy boxes

Dutta (Sris Chunder), 11, College Street, Calcutta.—Marking ink, and printing ink

Harold and Co., 3, Dalhousie Square.—Musical Instruments

Harold's Solid Sympathetic Grand Square Pianos; *Schiedmeyer and Soehne's* Pianos (of Stuttgart); *Mason and Hamlin's* American Organs; *Smith's* American Organs; Organista Orchestrinas; Musical Boxes; Silvered Military Band Instruments.

Jellicoe (W. E.), Lindsay Street.—Menist's perfect Pebble Spectacles

Linde (F.) 4, Sudder Street.—Indian maps, pamphlets, and telegraph codes

Mookerjee (J. N.), Art Studio, 185, Bow Bazar Street.—Alphabetical sheets, copy books, and artists' materials

See also section A.

Murray (James), 11, Dalhousie Square, East.—Musical boxes, Electrical and Scientific instruments.

In this Exhibit is shewn a collection of Electric bells, Telephones, Transmitters, Relays, &c., all made in Calcutta by native workmen under European supervision.

See also Jewelry Court

Newman (W.) & Co., Limited, 4 Dalhousie Square, Calcutta—Publications; Printing; Book-binding; Stationery; Surveying and Mathematical Instruments; Optical Instruments; Artists' Materials; Stationery Requisites.

PUBLICATIONS.—A collection of Books, Printed, Bound, Illustrated and Published by W. Newman & Co, Limited, chiefly relating to India

STATIONERY.—Specialités of Stationery prepared only for W. Newman & Co., Limited.

INSTRUMENTS—This Exhibit includes—

A 6-inch Transit Theodolite;

A 6-inch Railway Transit Theodolite without vertical are, prepared especially for India;

10 and 14-inch Dumpy Levels with the lines of collimation placed between two pieces of glass, so that the eye-piece can be removed and cleaned without disturbing the thread;

3 & 4-inch Prismatic Compasses;

100-feet steel Measuring Tape with nickel figures;

Various sets of Scales;
An improved Abney Level;
Improved Clinometer;
Sets of Drawing Instruments;
Binoculars; Opera Glasses;
Astronomical Binoculars, &c., &c.

ARTISTS' MATERIALS—Materials for Oil and Water colour Painting.

Metal Despatch Boxes.
Cash Boxes.
Copying Presses.
Fancy Leather Goods.

See also sections A. & G.

Ramchand Hazarimal, 33, Raja's Kuttra, Burra Bazaar.—Ivory work

See sections D. and E.

Smith (T.), City Press, Bentinck Street.—Stationery, printing and book-binding

Thacker, Spink and Co., 5 and 6, Government Place.—Publications; Engravings; Die-sinking; Picture Framing; Book-binding; Stationery

See also section A.

Thomson (John), 5, Commercial Buildings.—Black and coloured Writing, copying and marking Inks; Sealing Wax: all of local make.

See also section F.

Trail (D. M.), 20, British India Street.—Steel pens, stationery and printing

See also section A.

Wood (J. N. T.), 9, Hill's Place.—Jeypur map in Hindi characters

Section C.

HEALTH.

(CLASSES 16 to 22.)

Bathgate and Co., 17, 18, and 19, Old Court House Street.—Drugs and Medicines

Bathgate & Co.'s descriptive Catalogue of their numerous exhibits may be had at their stall.

Begg, Dunlop & Co, 12, Mission Row.—Water filter

Dr. Gray's patent improved rapid Water filter.

Datta (Sris Chunder), 11, College Street.—Tinctures

Datta (Sris Chunda), Peacock Chemical Works, College Square, Calcutta.—Pharmaceutical and Chemical Preparations, Stethoscopes.

See also section F.

Dutt (S. C.) and Co., Homœopathic Chemists and Druggists, 30, College Street.—Homœopathic medicines and medical requisites

Ghosal (Deno Nath and Co.), Canning Street.—Health

See also sections E., F. & K.

Mitra and Co., 1, Mirzapore Street, College Square.—Medicines

See also section E.

Smith Stanistreet and Co., 9 & 10, Dalhousie Square.—Drugs; Medicines

See also section H.

Waldie (Dr. David), 3½, Hasting's Street.—Drugs

See also section F.

Section D.

FURNITURE AND OTHER OBJECTS FOR THE USE OR DECORATION OF DWELLING-HOUSES AND OTHER BUILDINGS.

(CLASSES 23 to 37.)

Arlington and Co., 3B, Dalhousie Square.—Plated-ware : cutlery.

See also section G.

Burn and Co., 7, Hasting's Street.—Raneegunge pottery and earthenware.

Chotay Lall, 47, Raja Ka kuttra, Burra Bazar.—Worked cushions, tables, chairs, table covers, and a variety of Benares brass ware.

Clarke (F. T.), Lindsay Street, Calcutta.—Fancy articles, Indian-made brass work, marble inlaid, silver, copper, ivory work, enamel, garnets, and old arms.

Daw (Shib Kristo) and Co., 30, Clive Street, Calcutta.—Metals ; hardware ; cutlery.

Deschamps and Co., 5, Mangoe Lane —Furniture ; Art Furniture.

See Descriptive Notice.

Dunn and Co., 47, Bentinck Street.—Furniture.

Dutt (Ram Chunder) & Co., 79, Clive Street, Calcutta.—Metals ; hardware ; cutlery.

Edmond (J. M.) and Co. 27 & 28, Bentinck Street.—Furniture ; carvings.

Kwong Yeu Sing and Co., 28, Waterloo Street.—Chinese and Japanese goods.

Hamilton and Co., Jewellers, Old Court House Street.—Chiming clock, Bronzes ; Marbles clocks, and Watches.

HAMILTON & CO.'S EXHIBIT in the CALCUTTA COURT includes a varied and interesting collection of real BRONZES, exquisite PORCELAIN VASES of Sevres manufacture, painted by hand with original designs, and ormolu mounted in massive style ; MARBLE and BRONZE COLUMNS, and many other WORKS OF ART.

Here is shown also

THE MAGNIFICENT ENGLISH CLOCK, expressly prepared for this Exhibition, and which is without doubt the grandest Horological Machine ever imported into India. For description in detail see small hand-bill.

JEWELLERS IN ORDINARY TO H.E. THE VICEROY, CALCUTTA.

See also Jewelry Court.

Lazarus (C.) and Co., 56-62, Bentinck Street, Calcutta.—Cabinet Makers; Billiard Table Mufacturers.

FURNITURE ;
ART FURNITURE ;
UPHOLSTERY :
BILLIARD TABLE ;
MIRRORS.

See Descriptive Notice.

Murray (James), 11, Dalhousie Square, East.—Clocks.

Lazarus (C.) & Co., Cabinet Makers, Billiard Table Manufacturers, Upholsterers, and Decorators, 56, 58, 59, 60, 61 and 62, Bentinck Street, Calcutta.

BUFFET.—Louis XVI style, in solid Mahogany with carved enrichments surmounted with carved Pediment, representing lion's head and skin on oval Medallion ; cornice supported by fluted columns with carved capitals. Upper portion enclosed with plate glass doors, lower portion with carved panelled doors, manufactured to special design.

BILLIARD TABLE—Of solid mahogany with one and half inch slates, cushions on new and improved combination express principle, richly carved massive legs, surmounted by carved heads supporting foliage frieze forming the cushion, sides embellished with carved enrichments, ebonised reliefs, specially designed and manufactured by C. Lazarus & Co. One of the special features of this Billiard Table is its perfection in architectural detail, differing from *all other* tables, inasmuch as the unsightly appearrance of the pockets and plates is entirely dispensed with, thereby securing unbroken symmetry of design, while the facilities for play are improved.

DRAWING ROOM SUITE.—Ivory black, carved frames, upholstered in rich flowered silk damask bordered with "Star of India" blue satin.

DRAWING ROOM SUITE.—Double gilt, upholstered in rich terry velvet, bordered with sage green satin.

DRAWING ROOM SUITE.—(A'la Jonquet) Walnut and gilt, upholstered in Green and Gold and Crimson and Gold Benares Kincaub.

An assortment of Easy and Occasional Chairs, richly and tastefully upholstered, in various materials and styles.

MIRRORS.—A large Mirror, plate measuring 10′ × 6′, in massive solid mahogany frame, richly carved and double gilt. Renaissance style.

Two Mirrors, plates measuring each 10′ × 6′ in massive walnutised frames with gilt enrichments standing on flower stand bases. Louis XVI. style.

An Oval Mirror in massive double gilt frame.

Eight Venetian Mirrors.

SIDEBOARD AND DINNER WAGON.—Modern English in American Walnut French polished, with ebonised reliefs.

An assortment of Hall Dining Room and Bedroom Chairs, modern English, in American Walnut and Mahogany.

ALMIRAH—In American Walnut, of novel design, with mirror plate, drawers and dressing cupboard.

CABINETS.—Ebonised modern with bevilled mirror doors

An assortment of Fancy and Ornamental Tables and Teapoys.

DRESSING TABLE AND WASH-HAND STAND.—Modern English, in American Walnut.

See also British Court.

Osler (F. & C.)—Glass Manufacturers, Birmingham, London, and Calcutta. Glassware of the following kinds :—

CHANDELIERS, CANDELABRA AND FOUNTAINS.

ELECTRIC CHANDELIERS.

TABLE GLASSWARE.

GLASS TABLES, BED, COUCH, SOFAS, CHAIRS, CHEVAL AND TOILET GLASSES AND OTHER CONSTRUCTIVE WORKS IN GLASSWARE.

Lamps for kerosine oil.

Collection of decorative and Art Pottery by eminent Firms.

Collection of ornamental Venetian and other Foreign and British Glassware.

Collection of Venetian and other Mirrors.

The chief exhibits comprise the following :—

A CRYSTAL GLASS FOUNTAIN enclosed by a CRYSTAL GLASS BALUSTRADING. The fountain itself, which rests on a basement in the form of an octagonal colonnade of highly polished veined Sicilian marble, is a specimen of rich elaboration in *grosses pièces*, a section of glass manufacture which particularly tests the quality of the material itself, as well as the skill of the glass-cutter. The chief basin, 13′ in circumference, is composed of 12 segments, all of glass, so carefully joined as to give the appearance of one piece only ; above the basin are at intervals 2 smaller basins, the whole terminating in a vase shape finial. The hand rail of the Balustrading is of glass, 5 inches wide and about 40 feet long ; the main pillars are surmounted by vases and taper ornaments placed alternately. The Balustrading forms a piece of rare workmanship, showing many varieties of rich cutting and difficult but accurate fitting.

CHANDELIERS AND CANDELABRA.—Two large Chandeliers are shown in the transept. The one carrying electric burners is a specimen of good work on long and fragile pieces ; the arms, which are 6 feet long, and the other principal pieces merit special notice. The other, carrying 91 candle shades, although mainly composed of large pieces of clear and boldly cut crystal, also combines a full share of choice and fine cutting and delicate work. The shades are in clusters and effectively grouped. The smaller chandeliers and candelabra present a great variety in colour and style ; many choice specimens in crystal, ruby, green, amber and blue are exhibited, perfection of general contour, purity of material, and excellence of workmanship being mainly aimed at.

THE GLASS BED, THE OTTOMAN, SOFAS and CHAIRS are exhibited with a view of showing how perfectly glass is capable of being utilised in the construction of the larger articles of ordinary household requirements. These exhibits, in addition to their novelty, claim considerable interest as displaying much ingenuity in construction, skill in adaptation, and care in elaboration. In the Bed, the head and foot rails, parts which offer much scope for ornamentation, have been specially and carefully treated ; these show a class of work only recently attempted, and it is considered that they show much beauty in design and proportion, skill in arrangement, and delicacy in detail. The corner shafts and the four legs are solid, massive, and difficult of perfect construction.

THE CHEVAL and TOILET GLASSES, WHATNOTS and TABLES are intended to show the effect of the admixture of ornate mirror work with cut crystal glass. In the cheval glass, which is one of the choicest articles in the whole exhibit, no expense or trouble has been spared to make it a *pièce de resistance* ; in this the chief elaboration will be found in the cross-bar connecting the posts and in the frame of the mirror, the various kinds of cutting give mutual relief and at the same time greatly enhance the general effect of

the whole. The leaves and tablets and the minutely cut panelled border on the cross-bar, and the raised and richly set table-diamond shaped ornaments on the mirror frame are specimens of unusually effective cutting.

TABLE GLASSWARE.—In this collection will be found some new work in household appliances for native gentlemen as well as the ordinary class of table glassware ; the exhibit shows some high class specimens of elaborate and minute cutting, combined with perfection in artistic design and purity of material.

ORNAMENTAL GLASSWARE.—The chief attraction here is the display of Venetian glass imported from the Venice Murano Company. The collection includes a variety of the choice productions for which the City of Venice has for centuries been justly celebrated, and for which this Company in particular has achieved much renown.

LAMPS.—The Lamp exhibit includes many specimens of richly cut crystal glass and combinations of gilt metal with cut crystal glass. The general form of the stands is that which is technically known as the *Standard*, or pedestal and reservoir in one piece without the usual connecting screw. The advantage of this form is obvious—there is nothing to disconnect, whilst the general appearance is much improved. The exhibit consists mainly of glass standards, which are easily kept in good condition, and which retain their appearance of newness longer than any other kind. The globes, or shades, are of good material, and in many instances richly and elaborately cut. The ground work of the burner with these lamps is Hinks's ordinary Duplex with Extinguisher ; the punkah proof adjustment is entirely the invention of F. & C. Osler. This punkah proof adjustment is a new and successful improvement on the airslide burner, which has been in use so many years. The particular merits of this new burner lie in its safety under all conditions, its immunity from catching fire, its steadiness as a punkah proof burner, its power as an illuminating medium, its simplicity, its rigidity (nothing is loose or liable to get out of place), its neatness in form, and the facility with which native servants can manage it. F. & C. Osler claim for this burner an excellence under all conditions which has not been attained by any punkah proof burner yet produced.

PORCELAIN AND EARTHENWARE.—The collection includes many articles of domestic use and high class Art Pottery. Particular attention is drawn to the four ivory perforated Vases from the Royal Worcester Porcelain Company, Vases which claim inspection as works of a high order in design, in decoration and in quality of ware ; to the Peacock, Fawns and Jardinières in Majolica from Minton ; to the assortment of dessert plates and cups and saucers, and dejeuner service (all painted by well-known artists), centre piece and Vase from Copeland ; the large cylindrical Vase with raised stork decoration, the two cobalt and gold Rajah Vases, and the other ivory-body Vases with raised flower decoration by Doulton ; and to the handsome collection of effective Faience from the French and other potteries.

See also section F.

Deschamps & Co., 5 Mangoe Lane, Furniture Manufacturers—by appointment to H. R. H. the Prince of Wales, to H. E. the Viceroy, etc. etc. Firms in Calcutta and Madras.

Exhibits—Dining Rooms Furniture in Teak Wood, lined Claret Morrocco—comprising a Sideboard, 2 whatnots, 6 Armchairs, 6 Armless chairs, and one table.

Library furniture in rosewood richly carved, lined red morocco, comprising one Book case, 1 Writing table, 1 Sofa, 1 armchair, 1 armless chair and 2 fancy chairs.

One richly carved Cabinet in rose and sandalwood.

See also section G.

Ramchand Hazarimal, 33, Raja's Kuttra, Burra Bazaar—Ivory toys.

See also sections B. and E.

Tomlin (J. E.) and Co., 32, Dhurrumtollah.—Furniture.

A MAHOGANY FAMILY BEDSTEAD.—The head piece having a flower-pot from which grows a vine in full bloom, in the midst of which is a dove nest, the female bird is represented sitting upon her eggs while the male bird is seen hovering round the nests with food for its mate. The vine is encircled by a coil of twisted rope outside of which emerging from are two angels with outstretched wings watching over the peaceful slumberers. Above the coil of rope is to be observed a shield bearing the monogram of Coomar Indra Chundra Singh Bahadoor, of Paikpara, to whose order this piece of work has been made. It measures 8 feet long and 10 feet wide, it is now fitted with false sides to save space.

A MAHOGANY CLOCK BRACKET with a kite and a snake in deadly contest over a disputed branch, made to the order of Coomar Indra Chundra Singh Bahadoor, of Paikpara.

AN EBONIZED AND GOLD HOOKA of mahogany for four smokers, complete with pipe and chillum, made to the order of Coomar Indra Chundra Singh Bahadoor of Paikpara.

AN EBONIZED AND GOLD GOWN ALMIRAH ; its pair is in our establishment.

Section E.

FABRICS, INCLUDING APPAREL, TOILET REQUISITES, AND OTHER OBJECTS OF PERSONAL WEAR OR USE.

(*CLASSES* 38 *to* 52.)

Badham Brothers, 16, Old Court House Street.—Clothes; hosiery; hats; gloves

Chotay Lall, 43, Raja ka Kutra, Burra Bazaar—Curious shawls of Delhi, Cashmere, Umritsur, Lahore manufacture; Rampore chudders; Gold Worked cushions, chairs, tables covers; and a variety of Benares brass ware.

Cooke and Kelvey, 20 Old Court House Street.—Jewelry; Precious Stones

See also Jewelry Court.

Cumming (Alexander).—Court Robes; Lyons and Chinese silks.

Cuthbertson and Harper, 10, Government Place.—Boots

Dass and Co., 70, Old China-Bazaar Street.—Sola hats

Dass (C. C.) and Co., Radha Bazaar.—Tailory, hats and caps

Ghosal (Deno Nath) and Co., 25, & 26 Canning Street.—Fancy work

See also section C. F. & K.

Mittra and Co., 1 Mirzapur Street, College Square.—Ink; perfumery

Monteith and Co., 21 Old Court House Street.—Boots

See also section F.

Mookerjee (B. D.), Bhowanipore, Calcutta.—Cloth made by Tantees

Moore and Co, 5-2, Esplanade.—Fabrics; apparel

GOODS IMPORTED, Specimens.—Silks, Velvets, Plush, Woollen Dress Fabrics, Cotton Dress Fabrics, Muslins, Mourning Goods, Costumes, Jackets, Linings, Trimmings, Buttons, Ribbons, Laces, Made-up-Lace Goods, Silk Confections, Hosiery, Gloves, Mittens, Fancy Wool Goods, Sunshades, Rugs, Blankets, Coverings, Shawls, Corsets, Underclothing, Fans, Belts, Handkerchiefs, Linen Sets, Curtains, Millinery, Flowers, Feathers, Gentlemen's Ties, Collars, Braces.

GOODS MANUFACTURED IN THE COUNTRY.—Costume, Millinery, Lace Confections, Laces, Embroidery, Shirts, Sleeping Suits.

MOORE AND CO.'S SPECIAL COSTUMES EXHIBITS:—

PRINCESS OF WALES.—Wax portrait model; Grenat Dinner Costume.

PRINCESS BEATRICE.—Wax portrait model; Pigeon Gray Walking Costume.

DUCHESS OF CONNAUGHT.—Wax portrait model; White Bridal Costume.

MRS. LANGTRY.—Wax portrait model ; Crevette Evening Costume.

The following are Bona-fide INDIAN PRODUCED COSTUMES.—Manufactured in India by Indian labour and *entirely from Indian Fabrics* :—

PRINCESS OF WALES.—Wax portrait model ; Reception Costume. This Costume represents in material Benares, British Burmah, Burdwan, Berhampore, Calcutta, Trichinopoly, Rajbuhaut, Lukhipore.

DUCHESS OF EDINBURGH.—Wax portrait model ; Waiking Costume. This Costume represents in material Umritsur, Cashmere, Berhampore, Calcutta, Trichinopoly.

MARCHIONESS OF LORNE.—Wax portrait model ; Summer Costume. This Costume represents in material Dacca, Lukhipore, Hoogly, British Burmah, Calcutta.

CHANGE TEA GOWN.—This Gown represents in material Umritsur, Delhi, Burdwan, Berhampore, Trichinopoly, Calcutta.

EX-EMPRESS OF THE FRENCH.—Wax portrait model ; Evening Costume. This Costume is a combination of European and Asiatic materials, it represents British Burmah, Calcutta, Trichinopoly, London, Paris, Nottingham.

INDIAN PRODUCT MILLINERY.—Specimens of Millinery made in the country from European materials ; Specimens of Millinery made in the country by Indian labour and entirely from Indian materials.

National Co., 30, Colootollah Street.—Perfumery

Phelps and Co., Civil and Military Tailors, 15, Old Court House Street, Calcutta, Simla and Lahore.—Embroideries

The Embroideries here exhibited are entirely made by Native workmen under European supervision from Messrs. Phelps & Co.'s original designs.

Ramchand Hazarimal, 33, Raja's Kutra, Burra Bazaar.—Wool and shawl fabrics ; shawls ; jewelry

See also section B and D.

Ranken and Co., Calcutta and Simla.—Tailoring; Gold embroidery; military accoutrements

Roy Brothers, 30, Colootollah Street.—Perfumery ; ink

Smith, Stanistreet and Co., 9 and 10, Dalhousie Square, East.—Perfumery

See also section H.

Watson and Summers, Calcutta, Simla and Rangoon.—Theatrical wigs, beards, and fancy costume ; make up requisites

Watts and Co., 6, Wellesley Place.—Boots (Calcutta make.)

See also section F.

Section F.

RAW PRODUCTS AND MANUFACTURES FROM PRODUCTS NOT INCLUDED IN OTHER SECTIONS.

(*CLASSES* 53 *to* 81.)

Ahmuty & Co, (Ordnance and Marine Contractors to H. M.'S Indian Government) Proprietors, *Shalimar Steam Rope Works*, near Calcutta.

EXHIBITS entirely Local Manufacture.

Coir Cables, from 16″ to 42″ eircumference.

Coir Rope, from 3″ to 18″ circumference.

Manilla Cables, from 12″ to 25″ circumference.

Manilla Rope, from 3″ to 18″ circumference.

Western India Hemp Rope, Tarred and Untarred, from 3″ to 12″ circumference.

Manilla and Western India Hemp lines of sizes, consisting of Signal Halyards, Lead and Loglines, House and Marline, Cotton Ornamental Punkha line, &c.

Galvanized Iron and Steel Wire Rope, from 1″ to 7″ circumference. A sample piece of 4½″ Galvanized Steel Wire Rope, fitted with heart-shaped Cast Iron Dead Eyes, as supplied by the Firm, for the erection of suspension bridges; this is purely a trade sample worthy of the attention of Engineers.

Medals already awarded to Ahmuty & Co.'s Rope Factory, London International, 1862, and Australia, 1879. *Did not exhibit at Amsterdam.*

Cuthbertson and Harper, 10, Government Place.—Saddlery; harness.

Datta (Sris Chundra), Peacock Chemical Works, College Square Calcutta.—Printing Ink.

Dutt (Nobin Chunder) and Co., 19, Dhurrumtollah Bazaar—Best gum copal varnish of sorts; linseed and fish oils.

Fornaro (Henry), 3, Zig-Zag Lane.—Artificial stones; tiles.

Ghosal (Denonath) and Co., 25-26, Canning Street.—Raw products.

Ghose (Ram Chunder), 28, Radha Bazaar Street.—Burmah Cigars,

Great Eastern Hotel Wine & General Purveying Co., Ld., Old Court House Street.—Cigars, Tobacco, and Cigarettes.

Harton (W. H.) and Co., Offices 1 and 2 Strand; Works at Ghoosery. Established 1870. Hawsers and Ropes, Matting. The above here exhibited are manufactured of Coir, Manilla and Hemp.

Winners of the Gold Medal and Certificate of Honor—Calcutta Fine Arts, 1882.

Amsterdam Exhibition Gold Medal 1883.

Bronze Medal for Matting Calcutta Fine Arts, 1882.

Testimonial sent by His Royal Highness the Duke of Edinburgh, dated Mauritius, June 23rd, 1870, after the cordage supplied H. M. S. "*Galatea*" had been in use "*and proved to be of first quality.*"

Mittra and Co., 1 Mirzapore St., College Square.—Ink.

Monteith and Co.—Saddlery harness.

See also section E.

Osler (F. and C.), Birmingham, London and Calcutta.—Alexandra Oil for kerosine lamps.

See also section E.

Roy (Amrita Lall), 35, Burawaritola Road, Baliaghatta—Colour; varnish; inks.

Roy Brothers, 30, Colootollah Street—Oils.

Thomson (John), 5, Commercial Buildings.—Bar, & toilet soaps, refined tallow, &c., all of local manufacture.

Turner, Morrison and Co., 6, Lyon's Range, Calcutta.—Stick-lac and shell-lac; Lubricating oils and lubricants.

Waldie (Dr. David), 3½ Hastings Street.—Raw products, inks.

See also section C.

Watts & Co., Military Saddlers, Harness and Boot Makers, 5, Wellesley Place, Calcutta. Tanners, &c., at 15, North Road Entally.

Harness; gold embroidery; military accoutrements, (local make); saddlery (imported).

By Appointment to His Excellency the Most Hon'ble the MARQUIS of RIPON, K.G., P.C., G.M.S.I., Viceroy and Governor-General of India.

MESSRS. WATTS & Co.'s Exhibits in the Calcutta Court of GOLD EMBROIDERED HORSE TRAPPINGS, HARNESS, and BOOTS, are of the best English material, but the workmanship is entirely local, having been made on their premises at 5, Wellesley Place, Calcutta. The Exhibit of Saddlery is of English Manufacture and made by their own makers, who have for years supplied them.

Visitors to Calcutta are invited to inspect their large aud varied Stock of Military, Hunting and Race Saddlery, Harness, Boots, &c. Horse Clothing, Whips, Bits, Spurs, and every requisite for the Field or Stable.

Price lists on application to Watts & Co., 5, Wellesley Place, Calcutta.

See also section E.

Section G.

MACHINERY AND IMPLEMENTS, MEANS OF TRANSPORT, APPLIANCES AND PROCESSES USED IN THE COMMON ARTS AND INDUSTRIES, INCLUDING MODELS AND DESIGNS.

(*CLASSES* 82 *to* 109.)

Ahmuty and Co., Howrah Foundry.—Mill Casting and blacksmith work

See also section F.

Arlington and Co., 3-B, Dalhousie Square.—Electro-plating Battery; Ice Machines

Carrés Ammoniacal Ice Machine.
Carrés Pneumatic Ice Machine.
Arlington & Co. are Sole Agents in Bengal for the above.

A collection of plated ware comprising only such articles as are usually sold in Arlington & Co.'s Establishment in Dalhousie Square.

The Electro-silvering process (on a reduced scale) as carried on in Arlington & Co.'s manufactory.

Francis, Harrison, Hathaway, and Co., 13, Government Place. —Wheeler and Wilson's Sewing Machines.

See descriptive notice.

Kurmoker (Wooma Churn), 18, Naricole Danga Main Road.—1,000 tollah Balance for weighing money; 100 tollah Balance for weighing money; chemical balance.

Manton & Co., 13, Old Court House Street.—Fire-arms; Swords; Ammunition.

See descriptive notice.

Newman (W.) & Co. Ld., 4, Dalhousie Square.—Card Printing Machine; the Trypograph; the Remington Type Writer.

See discriptive notice.

Rodda (R. B.) and Co., 7 & 8, Dalhousie Square.—Ammunition; Fire-arms.

By special appointment Gun-makers and Armourers to his Excellency The Viceroy;

And Gun-Makers to His Royal Highness The Duke of Edinburgh.

His Excellency The Governor of Bombay;

His Honor The Lieutenant-Governor of Bengal, and His Excellency The Commander-in-Chief.

Cannon, Breech Loading, Choke and Cylinder Bore Shot Guns; Patent Safety Block Hammerless Guns; Double and Single Express Rifles; Large bore Rifles for Elephant shooting; Explosive Shells; Parts of unfinshed Guns; Gun Barrels; Actions, Locks, Furniture; Forgings; specimens of Rifling and Chock Boring; Swords.

Hog Spears; Hunting Knives.

See also section K.

Manton and Co., 13, Old Court House Street, and 1 Mangoe Lane.—Fire-arms; Swords; ammunition.

This business was established in India in 1828 by the late Joseph Manton, and is incorporated with the well-known Firm of Samuel Nock of Regent's Circus, Gun-makers in ordinary to Her Majesty the Queen.

The Firm has been appointed Gun makers to H. R. H. the Duke of Edinburgh, to His Excellency the Viceroy, and preceding Governors-General, and has also been honored with the distinguished patronage of H. R. H. the Prince of Wales, His Grace the Duke of Portland, the Rt Hon'ble the Earl de Grey, and numerous other members of the English nobility who have visited India.

No. 1 Case.

This collection of Exhibits includes Express, Tiger, Elephant, Rabbit Rifles.

Hammer and Hammerless Guns on all the latest improved systems.

Duck Guns, Revolvers and Pistols of every known pattern.

No. 2 Case.

Contains goods entirely manufactured in our local workshop to which we desire to draw special attention, as showing the capabilities of native workmen trained by practical European Foremen.

Double Breech-Loading Gun.

The Firm is proud to invite inspection of a Double Breech-Loading Central Fire snap action Gun, every portion of which (with the exception of the barrels) has been made on their premises especially for this Exhibition, and they may safely affirm that the workmanship and finish of this weapon cannot be surpassed in any part of the world.

This Exhibit also comprises Bullet- Moulds, Gun implements, Hog spears and other apparatus.

Swords and Daggers, richly embossed and mounted, which are really worthy of notice as perfect works of art.

Inventors of the Phosphoric Night Sight.

European assistants in charge, who will show and explain our Exhibits. Private Rifle Range, twenty minute's drive from Govt. House, where each weapon sold by us may be tested before purchase.

General Agents,

Calcutta Gun Club.

See also section K.

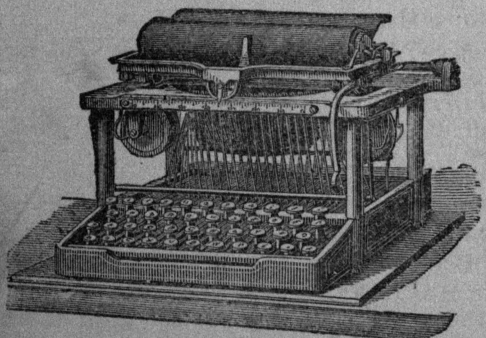
Newman (W.) and Co., Limited, 4, Dalhousie Square.—Card Printing Machine; the "Trypograph" Copying Process; The Remington Type Writer.

THE TRYPOGRAPH.—An Apparatus by which as many as 5,000 copies be reproduced from one writing. Outlines of the process:—

By writing with a stylus on a sheet of Trypographic paper, placed over a finely corrugated metallic plate, a number of minute perforations are produced in the lines traced by the stylus. The perforated sheet, or stencil, is then placed in the printing apparatus, and fixed by means of bars. A sheet of the paper to be printed upon is placed *underneath* the stencil; a small quantity of printing colour is pressed into the perforations by means of a scraper or squeezer, and a facsimile of the perforated writing is produced on the paper below. The oper ation may be repeated thousands of times.

CARD PRINTING MACHINE.—A small Printing Machine for rapidly printing visiting Cards, Tickets, &c., &c.

THE REMINGTON TYPE WRITER.



The Type Writer is an apparatus for writing Mechanically.

Writing with the machine is done simply by touching keys, which are arranged in four rows, and may be operated by any finger of either hand. On each key is printed the letter it represents. By depressing any key, the corresponding letter is printed on the paper. The "action" is fully as rapid as that of the Piano. It will thus be seen that any desired letter is completely transcribed in the same time and by the one motion that is required to bring the pen into the *first* position. Its rapidity is therefore manifest. Its manipulation is so easily understood that but little practice is required to enable the operator to become expert in its use. The size of paper which can be used is practically unlimited, as it is adapted to any width from three to eight inches, and to any length from one inch to a continuous roll.

This Machine was first introduced about 10 years, and though many inventions for mechanical writing have since been patented nothing has yet been found to surpass it. The machines are made for writing in Capital letters only, or both capital *and* smaller letters. The one exhibited is a double-fount machine, No. 2.

These aparatuses will be shown at work during the day.

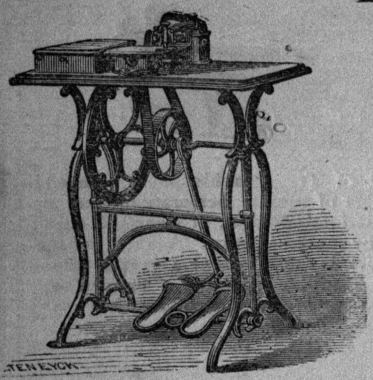
See also section A. and B.

Francis, Harrison, Hathaway and Co., Milliners, 13 Government Place, Calcutta. Sole Agents in Bengal for the sale of WHEELER and WILSON'S Lock Stitch Sewing Machines.

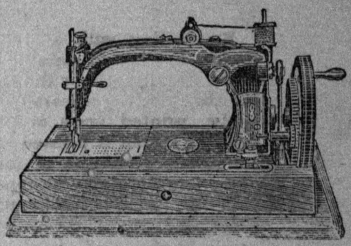
WHEELER AND WILSON'S Lock Stitch SEWING MACHINES obtained

THE ONLY GRAND PRIZE

At the Paris International Exhibition.



Nos. 1 and 2 Machine.



No. 8 Hand Machine.

No. 1 & No. 2 MACHINES,

Are adapted for Family and Domestic use, Dress-making, Shirt-making, and Light Manufacturing purposes. No. 1, Rs 105; No. 2, Rs 95.

No. 6 & No. 7 MACHINES,

For Tailoring, Leather work of all descriptions, and Heavy Manufacturing purposes. Rs 115.

No. 7 MACHINE,

Fitted with the improved Button-hole attachment: a most perfect Machine. Rs 200.

No. 8 HAND MACHINE,

Specially recommended for Family use. Rs 75.

No. 8 MACHINE,

For Family and Domestic use, Tailoring, Dress and Shirt-making, Light Leather work and general Manufacturing purposes. Rs 105.

No. 10 MACHINE,

For all kinds of Heavy work; this Machine is unrivalled. Rs 125.

FRANCIS, HARRISON, HATHAWAY,

CALCUTTA.

Sole Importers.

Section H.

FOOD PRODUCTS.

(*CLASSES* 110 *to* 136.)

Abdoollah (H. H.), 8, Ram mohun Ghose's Lane, Calcutta—Arrowroot.

Ahmuty and Co., 6, Church Lane, Calcutta, and Albion Works, Seebpore.—Biscuits; Flour; Rum; Spirits of Wine; Chutney, &c.

Dey (Preo Lall), 4, Beadon Square.—Wines, spirits, lime and other fruit-juices.

IMPROVED COUNTRY SPIRIT.—Silent spirit or pure Spirits of wine, free from fusel oil, obtained from Doasta and Rum by Chemical process and manufactured into gin, whisky and brandy.

LIME JUICE—Non-alcoholic Lime Juice, manufactured by Preo Lall Dey, Practical Chemist, 4, Beadon Street, Calcutta.

This Lime Juice is preserved by a non-alcoholic process, it will retain the flavour and taste of lemons and lime, and will not get mouldy, nor will it lose its acidity or citricity, or deteriorate in its anti-scorbutic property by time.

It has received Honorable Mention at the late Amsterdam Exhibition of 1883

Dutta Brothers and Co., 120, Municipal Market.—Indian condiments

Ghosal (Denonath) and Co.—Food products

Great Eastern Hotel Wine and General Purveying Company, Limited, Old Court House Street.—Wines; Chutnies

By Special Appointment to the Viceroy and Eleven Preceding Governors-General.

This Company exhibits Wines and Spirits; Pickles, Preserves and Indian Condiments; Cigars; Confectionery; Bread, &c. &c.

Wines of standard excellence—private label of the Company.

PORTS—Yellow seal—Old Tawny—a very delicate wine Red seal, "*Invalid*"—a fine Douro wine constantly improving in bottle. Black seal, dessert, a grand old Oporto "lodge" wine, with good body and color

SHERRIES—Green seal "Amontillado Fino." Very excellent bouquet and flavor, a really elegant wine. White seal Montilla, a fine specimen without added spirit

CLARETS,—*Breakfast*, clean round wine, free from acidity. *St Julien*—full flavor and good taste; Chateaux Margaux,—specially selected, highly commended as an after dinner wine

BRANDY—Hennessy (14 years in wood), specially bottled for the G E. H. Co. A magnificent liqueur brandy; very mellow

WHISKEY—"Great Eastern Blend;" highly recommended

CHAMPAGNE—As special agents for KRUG & Co., the Company exhibitsamples of the famous *Private Cuvee Ex Sec* vintage 1880, which is undoubtedly a really magnificent wine, with grand bouquet and dry flavor. Also K & Co.'s *first quality* Ex Sec, a capital dinner wine

INDIAN CONDIMENTS and PRESERVES, made from the finest picked Fruits.

BRONZE MEDAL—MELBOURNE EXHIBITION.

SILVER MEDAL—AMSTERDAM EXHIBITION.

CHUTNIES, of fourteen kinds, including the celebrated "Bengal Club," "Colonel Skinner's," "Major Gray's," "Sweet Lucknow," "Sliced Mangoe," "Cashmere," &c, &c

CURRY PASTE and POWDER, SAUCES, PRESERVED FRUITS of 12 varieties; PICKLES of 7 kinds

CIGARS, TOBACCO and CIGARETTES, *Real Havanah Cigars* specially imported for the Company. *Choice Manilla* cheroots—selected, *Imperial Burmahs*, guaranteed of Burmah manufacture, Nos 1, 2, 3.

EGYPTIAN CIGARETTES, (Nester Gianacli's, Cairo.

MALTA CIGARETTES of 4 kinds

LAFERME'S Cigarettes, eight varieties

TOBACCO—Pioneer—Pure golden leaf; Bright Honeydew; Black Cavendish, Bird's-Eye, &c. &c.

EXHIBITS OF CONFECTIONERY—Cakes (wedding and others), biscuits, bread, &c, &c

Newson (W.) and Co., 14 Chowringhee Road, and 24, Jewrie Street, London.—Indian condiments

Peliti (Federico), 10 and 11, Esplanade Row.—Sugar Works of art, confectionery, Indian liqueurs and preserves

Roy Bros., 30, Colootollah Street.—Food products

Smith Stanistreet & Co., 9 to 10, Dalhousie Square—Aerated waters

See also section E.

Smyth (B.) and Co., 1, New China Bazaar Street.—'Ayala' Champagne, 'Griffin' Ale, 'Plymouth' Gin, Hinckel and Winckler's wines; tea

Wilson, Mackenzie and Co., 13, Old Court House Street, and 1, Mangoe Lane.—Indian condiments

Section I.

AGRICULTURE AND HORTICULTURE.

(CLASSES 137 to 143.)

Mookerjee (B. D.), Bhowanipur.
—Fruits

Section K.

ETHNOLOGY, ARCHÆOLOGY, AND NATURAL HISTORY.

(CLASSES 144 to 149.)

Ghosal (Deno Nath) and Co.,—Natural history specimens
See also sections B., E. & F.

Manton and Co., 13, Old Court House Street, and 1, Mangoe Lane.—Fire-arms; swords; ammunition
See also section G.

Rodda (R. B.) and Co., 7 and 8, Dalhousie Square.—Guns, rifles, ammunition, &c.
See also section G.

BOMBAY COURT.

Section A.

(CLASSES 1 to 6.)

Bazonji (C. Dadabhoy), Ripon Hotel, Mahableshwar, Bombay.—Photographs.

Cortez, (A. P.) Bombay.—Specimen of lithography.

Poonah Municipality, Poonah, Bombay.—Chromo lithographs.

Section B.

(CLASS 9.)

Sir Jamsetji Jijibhai School of Art, Bombay; J. Griffiths, Esq., President.—A collective exhibit of Specimens of Work executed by Pupils in the School.

(Exhibited in the Fine Art and Jewelry Court.)

Section D.

(CLASSES 23 to 37.)

Ludha Ebrahim and Co., Bombay.—Carved Black-wood chair and flower stand.

Poonah Municipality, Poonah, Bombay.—Finger glasses, tumblers, bats, and balls.

Section E.

(CLASSES 38 to 52.)

Karmidikor (R. B.), Karwar Bombay.—Fancy work.

Poonah Municipality, Poonah, Bombay.—Gold and Silver Lace.

Sassoon and Alliance Silk Mill Co., Ld., Bombay.—Silk fabrics, Kinkhobs, Gold thread and wire; Silk.

Section F.

(CLASSES 53 to 81.)

Colaba Land and Mill Co., Limited, Bombay—Preparation and yarn from Broach Ground, Condwan and Compta Cottons; Cloths, Sheets, Dhoties, &c.

Bombay Steam Soap and Candle Works Co., Limited, Bombay.—Soap in packets and modelled in figures.

Gupte (Balkrishna Atmaran), Sir J. J. School of Art, Bombay—Materials for pottery.

Bombay Dyeing and Manufacturing Co., Ld., Bombay.—Yarns dyed by this Company are shown in the Manockjee Petit Manufacturing Company's Show case.

Coorla Weaving and Spinning Mills, Bombay—Mules of Surat Cotton and China Yarn; Sheets, Table cloths, Dhoties, Towels, Napkins and Piece goods.

Indian Manufacturing Co., Limited, Bombay.—Samples of Cloth and Yarn.

Kaiser-i-Hind Spinning and Weaving Co., Bombay.—Dhoties; Sheets; Yarns.

Mehrjee (Mehraji P.), Bombay.—Sample of cloth from the East of Africa.

Morarjee Goculdass Spinning and Weaving Co., Ld., Bombay.—Shirts, pantaloons, caps, hose, yarn, thread, sheets, cloth, towels and piece goods.

Manockjee Petit Manufacturing Co., Ld., Bombay.—Samples of cloth, thread and hosiery; the yarns being dyed by the Bombay Dying and Mfg. Co., Ld.

Section G.

(CLASSES 82 to 109.)

Bombay Port Trust, Bombay.—Models of Steam Dredger "Teredo," Hopper Barge, Beacons in use in Bombay Harbour.

Mancheram (Harichand), 8, Goolalwady, Bombay.—Iron Safe.

Oldham and Co., 3, Church Lane, Bombay.—Reeds; Healds.

Poonah Municipality, Poonah, Bombay.—Models in clay of oil press and sugarcane press.

Clay models of water lifts worked by hands and feet, and of a Persian wheel.

Walton, (Renzi), Bombay Municipality, Bombay.—Model of Bombay.

Section H.

(CLASS 136.)

Government Farm, Khandeish, Bombay—Samples of cheese and Puneria berries.

Section K.

(CLASSES 144 to 149.)

Poonah Municipality, Poonah, Bombay.—Ethnological Figures and Model in clay of Kunbi family working in the field.

Bombay Committee, Bombay.—Collection of Turbans worn by natives in the Bombay Presidency.

INDIAN COURT.

Section A.

FINE ARTS.

(*CLASSES* 1 *to* 6.)

Bolton (A. J.), Garden Reach, Calcutta.—Copies of celebrated Artists in Berlin wool.

Calcutta Art Studio, Calcutta.—Prints of Hindoo Mythological Scenes.

Dey (Nilmadub), 107, Radha Bazar, Calcutta.—Photographs.

Doss (R. B.), 89, Chuna Gully, Calcutta.—Phrenological Busts.

Fry and Rahn, Lucknow and Naini Tal, N.-W. Provinces and Oudh.—Porcelain Paintings and Photographs.

Johnston and Hoffmann, Calcutta.—Paintings and Photographs.

Mitra (Priya Lall), 26, Telepara Lane, Calcutta.—Lithographs.

Planter's Stores and Agency Co., Ld., Debrughur, Assam.—Photographs of Industrial and Picturesque Assam.

Vuccino (P.), Poonah, Bombay.—Photographs.

Section B.

EDUCATION AND APPLICATION OF LIBERAL ARTS.

(CLASSES 7 to 15.)

Ali (Imad), Mhow, Central India.—Lawn-Tennis and Badminton Gear.

Bengal Educational Department.—EXHIBITS TO ILLUSTRATE THE WORK OF THE DEPARTMENT.

Group I. Indigeuous Education
,, II. Primary Education.
,, III. Secondary Education.
,, IV. University Education.
,, V. Special instructions, female education, European and Eurasian Schools, &c.
VI. Report of the Education Commissions.

INDIGENOUS PATSHALA OR PRIMARY SCHOOL.—An actual Patshala of about 60 native boys and a 'Guru' or teacher will be held in a building specially prepared to represent a native school-house. The school will be open for two hours, twice a week, on dates to be afterwards notified.

SCHOOL APPLIANCES, BOOKS, &c.—

Group I.—Implements used in writing and accounts ; photographs of Indian College.

Group II.—Specimens of School books in the various languages taught in Government and other schools throughout Bengal.

Group III.—Maps, Geography, Primers, Atlases, in Eastern characters.

SPECIMENS OF WORK DONE BY PUPILS IN SCHOOLS.

Group I. Hand writing in the various languages taught in Bengali schools.

Group II.—Plans, Maps, &c., prepared in Industrial, Survey and other schools.

Group III.—Drawings, Paintings, &c., from Schools of Art and other schools.

Group IV.—Needle, Fancy, and other work done in Girls' schools.

Group V.—Specimens of work done in Zenana schools.

Bengal Jails Department.—Presidency Jail.—Stereotype plates, electro-types ; Printing Materials.

Callarman (J.), 16, Wellesley Street, Calcutta.—Improved Indian rubber Stamps and Prints.

Canal Foundry and Workshops, Roorkee, N. W. P.—Surveying and Scientific Instruments, manufactured in the Workshops.

Devi (Soshimukhi), Salgaria, Pubna, Bengal.—Globe.

Doss (R. B.,) 89, Chuna Gully.—Phrenological Books, Chart, and Instrument.

Dutt (Parna Nath), 111, Radha Bazaar, Calcutta—Maps and Atlases in oriental character.

Government School of Art, Calcutta. Principal, Jules Schaumburg, Esq.—A collective exhibit of Specimen of Work done by pupils School, comprising :

Studies from Life in Oils, Water Colours, and Crayon.

Designs of Textile Manufactures.
Decorative Specimens in Tempera Colours.
Architectural and Mechanical Drawings.
Specimens of Lithography, Wood-Engraving, Chasing in Metalwork, Modelling, Pottery, and Carving.

(Exhibited in the Fine Art and Jewelry Court.)

Government Press, Allahabad. —Specimens of Printing and Book-binding.

Meteorological Department, Government of India.—Chart of average annual rainfall of India, ;
3 Charts of average rainfall at the principal seasons ; Chart of annual Isotherms by S. C. Hill, Esq. ;
12 Charts of monthly isothermsf
12 Charts of monthly isobars and winds ;
12 Charts of monthly cloud distribution.
Van Rysselberghe's Meteorograph ;—Instruments for registration of Solar heat, atmospheric temperature, and humidity ;
Specimens of autographic registration of temperature, pressure, wind, &c.

Meteorological Department Govt. of Bengal—7 Charts of monthly average rainfall of Bengal.

Ray Bros., 30, Coolootollah Street, Calcutta.—Writing Inks and Stamping Inks of all Colcurs.

Stamps and Stationery Depart. Gov. India.—Specimens of stamps manufactured in the Department and in use in India .

Survey of India, Calcutta. — A collective exhibit, comprising :
Instruments in ordinary use in the Survey of India.
Illustrations of Indian Geography, Political and Physical, and Maps illustrating the material progress and state of India.
Specimens of Cadastral Maps of the Scale of 16 inchto the miles.
Specimens of Methods of Reproduction of Maps, Drawings, &c., Copper Plate Engraving, Lithography, Photo-Zincography, Photo-Collotype, Photo-Engraving, &c.
Books issued by the Department.
Solar Photographs.

Waterhouse (Major J.), S. C., Assistant Surveyor-General Calcutta. —Specimens of Photo-Mechanical Printing by various processes.

Section C.

HEALTH.

(CLASSES 16 to 22.)

Barr (J. T.) and Co., 15 Garden Reach, Calcutta.—Disinfecting Powder.

Bengal Jails Department.—ALIPORE JAIL.—Watering cart.

Bradley & Co., Vulcan Iron Works, Allahabad.

Patent conservancy cart;

Patent air-tight conservancy buckets. Special prize of Rs 1,000 awarded by H. M.'s Imperial Government.

Patent hand Iron Conservancy Cart for narrow lanes.

See also sections G. & I.

Carnac Iron Works, Bombay.—Night-soil cart; Watering-cart; Conservancy cart, and Latrine.

Coporation of the Town of Calcutta.—

DRAINGE DEPARTMENT—Models of sewers in Calcutta.

Diagram of Principal main receiving sewer from river to outfall.

Photographs of sewage and of storm-water drainage works.

WATER WORKS DEPARTMENT.—Models; Diagrams, and Photographs of the Water supply of Calcutta.

Photographs of Municipal workshop, and other buildings.

Faizullabhoy, 111, Canning Street, Calcutta.—Compound Vegetable Salt; Itch and Ringworm Powder.

See also section H.

Gupta (B. M.) & Co., 9, Dhurrumtollah Street, Calcutta.—Honey food; Ague mixture; Rose lotion, and Pain-killer.

Haldar (P.) & Co., 19, Bow Bazar Street, Calcutta.—Artificial teeth.

Johnson (P. B.), Clive Road, Allahabad.—Improved Army Dooly.

Kali (Dr. Chundra Shikhar,) L.M.S., Assistant Surgeon, Pubna, Bengal.—Filter; Surgical Instruments, and Medicines.

The Filter here exhibited is of Native manufacture. It is claimed that it filters water with equal rapidity to that of the Filters of the best European makers, that it can be more easily cleaned, and that it is much cheaper. The one exhibited is intended to filter 27 gallons of dirty water a day.

Madholall & Co., Castor-oil manufacturers, Dinapore—Medicinal Castor-oil.

See also section F.

Mittra (L. V.) & Co., Homœopathic Chemists and Booksellers, 1, Upper Circular Road, Calcutta.—Homœopathic drugs and Druggists' requisites.

Nundon (Tincoury,) 17, Kassareeparrah Road, Bhowanipore, Calcutta.—Surgical instrument and Hospital appliances.

Stephenson & Co., 14, Chowringhee Road, Calcutta.—Mrs. Anna Aratoon's Patent Cough Pills.

Section D.

FURNITURE AND OTHER OBJECTS FOR THE USE OR DECORATION OF DWELLING HOUSES AND OTHER BUILDINGS.

(CLASSES 23 to 37.)

Bengal Jails Department.—
ALIPORE JAIL.—Invalid couch, easy chair, water clock.
ALIPORE REFORMATORY SCHOOL.—Teapoys, Tin cabinet, Tin writing cases, Cane chairs.
BHAGULPUR CENTRAL JAIL.—Carpets.
BUXAR JAIL.—Tents.
CUTTACK JAIL.—Table cloths, napkins.
HAZARIBAGH CENTRAL JAIL.—Carpets, aloe matting, aloe door mats.
MIDNAPUR JAIL.—Purdahs, table cloths, napkins, dusters, coir brush mats, coir matting.
RAJSHAHYE JAIL.—Cotton window curtains, purdahs, cane furniture and waste paper baskets.
RUSSA FEMALE JAIL.—Fancy purdahs.

Bhungara (Framjee Pestomjee), Madras.—Art ware ; Pottery ; carving ; Ornamental work in silver and copper ; Ivory toys.
See also section E.

Bradley & Co., Vulcan Iron Works, Allahabad, North-West Provinces.—Patent Thermantidotes. This Thermantidote claims to be the most powerful cooling apparatus in use in India.

Canal Foundry and Workshops, Roorkee, N. W. P.—Name Plate ; Katora or Time Cup ; a Shifting form.

Dhankoti Roya (Dr. W. E.).—Cast Iron Ornamental furniture.

Elgin Mills Company, Cawnpore, North-West Provinces.—Tents, and Camp equipment.
See also section E.

Ghosh (Hurry Charan), 51, Sankaritola, Calcutta.—Universal Timekeeper (Geographical).

Ghosh (Rossomoy) & Sons, Calcutta.—Glassware.
See also section F.

Indian Carpet Manufacturing Company, Allahabad.—Woollen Carpets.

Johnson (P. B.), Clive Road, Allahabad.—Self-watering Thermantidote.

Marcks (C.) and Co., Rampart Row, Bombay.—Clocks ; Watches.

Muir Mills Company, Ld., Cawnpore, North-West Provinces.—Tent ; Model tents ; Camp equipment.
See also section E.

Nathooram, Sculptor, Drummond Road, Agra.—Marble ; Soapstoneware ; Chess boards ; Plates ; Boxes ; Flower pots ; Paper weights and Tables.

Roberts (John) & Co., Bombay, 18, Marine Street, Bombay.—Billiard Table and Accessories complete.
See also section F.

Sorabjee (Cowasjee.)—Artware

Wood (J. N. T.), 9 Hill's Lane, Calcutta.—Metal cabinet of air-tight Canisters for Seeds.
See also section F.

Section E.

FABRICS, INCLUDING APPAREL, TOILET REQUISITES AND OTHER OBJECTS OF PERSONAL WEAR OR USE.

(*CLASSES* 38 *to* 52.)

Bengal Jails Department.—
ALIPORE JAIL.—Gunny cloth and gunny bags.
BHAGULPUR CENTRAL JAIL.—Cloth and blankets.
BUXAR CENTRAL JAIL.—Towelling, sheeting, specimens of uniforms made in the Jail for Police and Jail Departments, and of cloths made for use of prisoners.
CUTTACK JAIL.—Towels and sheets.
MIDNAPORE JAIL.—Bathing and hand towels.
RAJSHAHYE JAIL.—Twilled silk and cotton cloth,
RUSSA FEMALE JAIL.—Towelling, horse-clothing.

Bhungara (Framjee Pestonjee), Madras.—Swami Silver work.
See also section D.

Dhole (Nund Lall), Calcutta.—Perfumery.

Duncan Bros. & Co., Calcutta.—Safflower ; Carthanius tinctoris.

Duncan Bros. & Co.—A Diamond Star.

Egerton Woollen Mills, Dhariwal, North-West Provinces.—Woollen manufactures.

Elgin Mills Co., Cawnpore, North-West Provinces.—Cotton Fabrics ; Wool.
See also sections D. & F.

Greet & Co.—Boots.

Khan (Banka Behary), Tahirpore, Rajshahye, Bengal.—Fancy work.

Muir Mills Company, Cawnpore, North-West Provinces.—Cotton Cloths ; Drills Shirtings.
See also sections D. & F.

Mukharjee (Joykissen), Utterpara, Hooghly, Bengal.—Cotton Fabrics ; silk Fabrics ; Fancy work ; Chemical for cleaning the mouth.
See also section F.

Oppenheim & Co., Cawnpore, North-West Provinces.—Portmanteaux.
See also section F.

Ray Brothers, 30, Colootolah Street, Calcutta.—Waterproof Blacking ; Hair oil ; Pomatum ; Lavender water.

Shaw (Dhyan Chand) & Sons, Table Cloth Merchants, Dinapore, Bengal.—Table Cloths ; Napkins and Towels.

Shaw (Jhoomuk) and Co., Dinapore, Bengal.—Cotton Fabrics ; Table Cloths ; Napkins, &c.

Shaw (Pershad) and Co., Dinapore, Bengal.—Cotton Fabrics ; Table Cloths ; Napkins, &c.

Shaw (Thakur Prasad) & Co., Dinapore, Bengal.—Table Cloths ; Silk ; Tussur ; and Bafta.

Shaw (Kunno Lall) & Co., Dinapore, Bengal.—Table Cloths, Napkins, Dusters, Sheets.

Section F.

RAW PRODUCTS AND MANUFACTURES FROM PRODUCTS NOT INCLUDED IN OTHER SECTIONS.

(CLASSES 53 to 81.)

Alipore Coal Co., Ld., Khairabad Colliery, Bengal.—Specimens of Steam Coal, Screened Rubble Coal, Brick-burning Rubble Coal.

Ambler & Co., Monghyr, Bengal.—Slates.

Assam Railways and Trading Company, Limited, 29, Strand, Calcutta.—Coal; Coke; Timber; Petroleum, Assam.

See also sections I. & K.

Bally Paper Mills Company, Limited, Geo. Henderson & Co., Agents, 100, Clive Street, Calcutta.—Paper. A series of Samples showing the process of manufacture.

Barangah Oil Refining Co., Ld., Kyouk Phyoo, British Burmah; Gillam & Co., Agents.—Crude Mineral Oil and its Products.

Barr (T. J.) and Co., 15, Garden Reach, Calcutta.—Soap and disinfecting Powders.

Barrakur Coal Co., Ld., Kornerdobi Colliery, Bengal.—Specimens of Steam Coal, Steam Rubble Coal, &c.

Begg Dunlop and Co., 12, Mission Row, Calcutta.—Indo-American Manufactured Tobacco; Cured Tobacco Leaf from the Poosa and Ghazipore Tobacco Farms.

(See advertisement).

Begg Dunlop & Co., 12 Mission Row, Calcutta Samples of manufactured Indigo from the Bhicanpore, Turcoolen, Seeraha, and Hursingpore Factories, Tirhoot.

Belgatchia Oil Mills, Poorna Charan Bose & Co., Proprietors, 57-1, College Street.—Oils.

Bengal Stone Company, Limited, Geo. Henderson and Co., Managing Directors and Secretaries, 100, Clive Street, Calcutta.—Stone; Raw Silk and Cocoons from Lister & Co., Mudhophur Filature, N.-W. Provinces.

Bengal Mills Company, Limited, 7, Clive Row, Calcutta—Cotton Yarns and Cotton in process.

Bengal Jails Department.—BHAGULPUR CENTRAL JAIL.—Samples of wools used in making carpets; ditto in different stages of manufacture; samples of dyed yarns; dye stuffs used in dyeing wool.

CUTTACK JAIL.—Coir string,

HAZARIBAGH CENTRAL JAIL,—Aloe fibre, crushed and uncrushed (selected and ordinary leaves), colored.

Bird & Co., 39, Strand Road, North, Calcutta—Samples of Copper ore and Copper.

Bysack (Khetter Mohun) & Sons, 3, Prosonno Cumar Tagore's Street, Calcutta.—Oil-seeds and Oils.

TRADE MARK.

K. B.

COLD DRAWN CASTOR OIL.—Prepared without the aid of heat, and is used in medicine, is tasteless.

COAL DRAWN CASTOR OIL.—Hot drawn, and is generally used in medicine.

CLARIFIED CASTOR OIL.—Purified by boiling and filtration, and is also used in medicine.

FINE PALE OR (K. B. 1, CASTOR OIL).—Largely manufactured for shipment to Europe and Foreign Ports.

GOOD SECONDS (OR K. B. 2, CASTOR OIL.).—Very largely manufactured for shipment to Europe and other Ports, and is used for burning, lubricating and other purposes.

MUSTARD OIL—For Culinary and domestic purposes.

TIL OIL OR SISAMUM OIL.—For Culinary, Domestic and Batching purposes.

POPPY SEED OIL.—For Culinary, Domestic and Batching purposes.

NIGER SEED OIL.—A sweet oil like Til Oil.

GROUND NUT OIL.—Tastes like Olive.

SCENTLESS COCOANUT OIL.—Is used in India as Hair oil.

LINSEED OIL, RAW AND BOILED.—Paint oil.

OILSEEDS of different kinds.

K. B. WHITE CASTOR CAKE.—For Manure.

Cawnpore Harness and Saddlery Manufactory.—Accoutrements; Accoutrements, experimental, N. I. No. I.; Experimental, N. I. No. II.: Appointment and Tools, Pioneers'; Harness and Saddlery Harness, general service and saddlery universal; Hides, Skins, japanned canvass, rhinoceros hide tables, glue, tanning material; Frame showing hides, skins and leathers in different stages of tanning, &c.; Harness and saddle saddle-trees.

Chelamiah (P.), Agents, Gillanders Arbuthnot, 5 to 8, Clive Street, Calcutta.—Castor-oil.

Dass (Lala Venkata), Ivory Merchant, Vizagapatam, Madras.—Ivory; Tortoise shell; Horn; and Fancy Work.

Dhole (Nund Lall), 121, Musjidbarry St., Calcutta.—Oil; Soap and other Oleaginous substances.

D'Oyley (W. H.), Bhaugulpore, Bengal.—A collection of Minerals from the Bhaugulpore District.

Dwarka Nath Ghose, Circular Garden Reach Road, Sonie, Calcutta.—Dyeing materials, specimens of dyed thread.

Eaton C. W.) & Co., Madras.—Tobacco; Snuff; Cigars.

East Indian Railway.—Coal from the Company's Pits.

Elgin Mills Co., Cawnpore, N.-W. Provinces.—Cotton Yarns and Manufactures.

Equitable Coal Company, Limited, 1, Lyon's Range—Coal Samples from the Company's Collieries at Seetarampore, Barrakur, and Raneegunge; Limestone and Iron ore from its Chowrasee property.

See also sections D. & E.

Forest Dept., Andamans and Nicobars.—Timber.

Pterocarpus Indicus, Padouk (Bur),

	Length.	siding,
No. 1.	45′	24″
2.	41′	22″
3.	40′	19″
4.	39′	19″

Artocarpus Lacûcha, Lacûch, Berar, Myouk-lôt.

No. 5 34′ 12″

Mimusops Indica, Mowha, 'Bullet wood.'

No. 6 41′ 18″

No, 7, sleeper, 10′ 10″ × 5″

Messua Ferrea, Gangaw, 'Iron-wood'

No 8 42′ 17″

No. 9, sleeper, 10′ 10″ × 5″

Hopea odorata, Thingan (white)

No. 10 45′ 17″

Lagerstræmia flos reginæ, Pyimma, Jarûl, Kadali Pua, Nali Dasal

No. 11 45′ 18″

Artocarpus chaplasha, Chaplash, Tongpoeng, 'Wild Jack.

No. 12 43′ 18″

Podocarpus latifolia, Thitmin,

No. 12, 29′ 12″

Albizzia lebbek, Koko, Siras,

No. 14, 42′ 17″

Diospyros Kursii, 'Marblewood.'

No. 15, 7′ 8″

Murraya exotica, 'Satin wood.'

No. 16, 4′ 3½″

Heterophragma adenophyllum, Pethan.

No. 17, 4′ 4″ × 2½″

Terminalia bialata, Thit lœtpyœ (Bur), 'Chugalam.'

No 18, 47′ 17″

Garden Reach Cotton Mills, Mackinnon Mackenzie & Co., Agents, 16, Strand.—Cotton in Process and Yarn.

George (E. M.), Sutna, Central Provinces.—George's Patent Portable tubular wire fencing.

Ghosh (Rossomoy) & Sons, Calcutta.—Soap and other Oleaginous substances.

See also section E.

Gobra Tannery Company, Limited, 12 Jackson's Ghât Street-Calcutta.—Leather and articles made of Leather.

Gooye (Radasham), Ghattal, Midnapore, Bengal.—Raw Silks; Silk and Cotton Fabrics.

Henke (G.), & Co. Calicut, Malabar, Madras; Grossman & Co, Agents, Jackson's Ghaut Street, Calcutta.—Malabar Cigars. These Cigars are made of finest selected East Indian Tobacco mixed with Cuba and Sumatra Tobacco respectively to such a proportion that the mildness of the latter kind is combined with the peculiar aroma of the former.

Greet (A. H.), and Co., Calcutta Agents—Grey and Co., 9, Weston's Lane.—Harness.

India Jute Company, Limited, Mackinnon Mackenzie & Co., Agents, 16, Strand.—Jute fabrics and yarns.

Kangra Valley Slate Company, Ld.—Slates for roofing and flooring.

Kirby (W.), Brookland Estate, Coonoor, Neilgherries, Madras.—Cinchona bark.

Macropolo (D.), Bombay, and 13, Esplanade Row, Calcutta—Cigarettes, Cigarette tobacco, and tobacco leaves.

Madholall & Co., Castor-oil Manufacturers, Dinapore, Bengal.—Castor-oil for burning.

See also section C.

Michea and Geneste, 5, Strand Road, Serampore, Bengal.—Indigo (two processes of manufacture).

Muir Mills Co., Cawnpore, North-West Provinces.—Cotton threads in cops and hanks; Cotton cloths; Drills; Sheetings, &c.

See also sections D. & E.

Mukharjee (Joykissen), Utterpara, Hooghly, Bengal.—Jute fabrics.

See also section E.

North-West Soap Company, Limited, Meerut, North-West Provinces.—Soap (bar, toilet, and soft).

Oakes & Co., Madras, Agents, J. W. Browne, 2, Esplanade Row, Calcutta.—Cigars of various brands.

Oppenheim & Co., Cawnpore.—Saddlery, Harness, and Portmanteaux.

See also section E.

Peirce, Leslie & Co., Cochin—Coir rope.

Poorno Chunder Bhose & Co., Calcutta.—Castor, Poppy, Mustard, and Tilseed Oils.

Rangoon Oil Company, 81, Clive Street, Calcutta.—Earth Oil and Products.

Roberts & Co., Cigar Manufacturers, Coconada.—Lunka Cigars; Cheroots; Snuff; and Leaf Tobacco.

Roberts (John) & Co., 18, Marine Street, Bombay.—Ivory Balls (Billiards).

See also section D.

Seebpore Jute Manufacturing Company, Limited, Apcar & Co., Agents, 19, Radha Bazaar Street, Calcutta.—Raw Jute; Yarns; Cloth; and Bags.

Simon (G.), Coimbatore, Madras.—Tanned hides and skins.

Stanes (Thomas) & Co., Coimbatore, Madras.—Agave Americana and Sanseviera Teylanica Fibres.

Tangra Tannery, Calcutta.—Hides, leather and manufactures from leather.

Upper India Cowper Mills Company, Limited, Lucknow, Oudh.—Paper and Paper-making materials.

Volkart Brothers, Cochin.—Cochin Coir Matting.

Wood (J. N. T.), 9 Hill's Lane, Calcutta.—Cabinet of Seeds indigenous to India.

See also section D.

Section G.

MACHINERY AND IMPLEMENTS, MEANS OF TRANSPORT, APPLIANCES AND PROCESSES USED IN THE COMMON ARTS AND INDUSTRIES, INCLUDING MODELS AND DESIGNS.

(CLASSES 82 to 109.)

Agri-Horticultural Society of India, Metcalfe Hall, Calcutta—Garden at Alipore. Implements and processes used in the indigenous manufactures of India.

1. Reeling Silk from the cocoons.
2. Lac manufacture in progress.
   —Raw Stick Lac.
   Shellac.
   Refuse.
   Making ornaments and sealing wax.
3. Oil Mill, working.
4. Sugar Mill, working.
5. Cotton series.—
   Cotton Gin.
   Cleaning Cotton.
   Making Twist.
6. Husking Rice.
   Ukhli.
   Dheki.
   Japanese Rice Husker.
7. Making Scents and Scent shop.
8. Indian Ploughs.
   Bengal, Behar, N. W. Provinces, Orissa.
9. Improved Ploughs.
10. *Models.*
    Persian Water wheel, in use in Upper India.
    Sugar Mill used in East Bengal and Assam &c. &c.

The Agricultural and Horticultural Society of India take advantage of the opportunity afforded by the Exhibition, to bring forward prominently some of the implements and processes used in indigenous manufactures in India, and have selected a few to be kept actively at work, as they consider that some judiciously chosen typical implements at work will be more instructive, and will more clearly demonstrate both the general capacities and deficiencies of native modes, as well as the requirements of the country, than the largest collection of Indian implements, not at work, would do.

The two main objects the Society have in view are to show, first, that crude though native implements may be, their cheapness, and the ease with which they can be constructed, worked, or any broken part replaced, render their purchase within the means of ordinary ryots, in a country where skilled labor to put together or repair, any but the most simple rough implements is unobtainable, save in, or near to, large towns, so that imperfect though native methods may be as they are not altogether inefficient, machines to compete with them must not only give a large percentage, better results, but should be simple of construction, easily repairable, and above all cheap, even from an Indian point of view. Experience shows that machines combining these qualities find a ready sale in India, and that it is not merely a conservative love of old ways, but the want of skilled labor, as much as that of capital, which prevents the adoption of modern means and appliances That this is the case, is demonstrated by the fact that intelligent European planters use few, if any, of the many modern agricultural machines for the cultivation of their broad lands, and that for the repairs of such machinery as they are obliged to use in the manufacturing process, they have to retain the services of skilled workmen at a considerable expense.

The second object of the Society is to prove that even with the primitive means, similar to those they exhibit, vast quantities of staples are prepared for the market, so that with better appliances, yielding greater and better results, at the disposal of producers, savings in first cost would be effected and great reductions might be expected to be made in market prices. A few improved implements, such as have found a fair sale in India, are exhibited.

Ahmuty & Co., Howrah Foundry, Howrah.—Sanitary cart; Cantwell's Patent Tea Boxes; Cantwell's Patent Sugarcane Crushing Machine.

Begg Dunlop & Co., Calcutta.—J. S. Begg's Indigo and Tea Planter's cart;

J. S. Begg's Patent Indigo Cake Cleaning Machine;

Reid's patent Tea breaker;

J. S. Begg's English made wrought iron Tea, Indigo or Conservancy cart wheels.

Harvey Bros. and Tyler's Patent Lacquered Tin Tea Boxes.

See also section F.

Bengal Jails Department.—ALIPUR JAIL.—Oil mill (Jail pattern), Iron Oil drum with screw cap.

BUXAR CENTRAL JAIL,—Indigo pressing cloth.

Bose (Mohesh Chandra), Bankipore—An improved Lock.

It cannot be unlocked without the help of the graduated ring and without knowing how much the key is to be turned for the upper and how much for the lower bar.

Bradley & Co., Vulcan Iron Works, Allahabad.—Patent Iron Road Watering Cart, Patent Cart Cash Safes; Portable Railway Cash Safes; Patent Commissariat Iron Store or Transport Cart.

Bradley & Co. Vulcan Iron Works, Allahabad.—Sealed clips to secure Mail-bags, Cash bags, Railway Vans, and other articles requiring seals; Self-closing Letter Box to guard against robbery of letters.

See also section C. and D.

Burn & Co., Howrah, Bengal.—Machinery, Implements, Iron ware, &c., of their own manufacture.

BURN & Co., Howrah, Sole makers.

Boomer Presses, Hand;

Boomer Presses, Steam;

Thomson's Patent Tea Rolling Machines;

Shank's Patent Portable Sugar Mills.

Bull's Patent Dredgers;

Larrymore's Patent Punkah Pulling Machine.

Perrie's Patent Tubular Collapsing Reversible Life Boat;

Patent Dooley;

Fibre Extracting Machine;

Samples of Indian Ore, from the Beerbhoom District, worked up in Burn & Co.'s works into Bars (directly from the Ore itself);

Crab Winches, etc.

Rolled Iron Beams.

See also British Court.

Canal Foundry and Workshops, Roorkee, N. W. P.—Electrical Apparatus; Spear Heads; Workshop Machines and Tools; Horse-measuring standard; 24-inch Bell.

Carnac Iron Works, Bombay.—Ornamental iron building; Steam Launch; Boiler; Manual fire Engine; Road-roller.

See also sections C. & I.

Cook & Co. Calcutta.—Skeleton Gig; District Cart; Stanhope Gig; Rustic cart; Whitechapel Cart.

Day (O. B.) & Son, Calcutta.—One pair Spider built Buggy Wheels.

Denham-Olpherts, Howrah, Bengal.—C. I. Railway Sleeper, Denham & Olpherts' patent for double headed rail.

C. I. Railway sleeper, Denham and Olpherts' patent for flat-footed rail.

Denham-Olpherts' patent C. I. metre gauge sleeper, with Molesworth's wedge fastening.

C. I. Bridge chair, and Denham-Olpherts' patent for double headed rail.

C. I. Railway Sleeper, Denham and Olpherts' patent placed in road January 1880, removed November 1883, duty performed 16,000,000 tons.

Deschamps & Co., Coach Builders, Madras and Calcutta, 5, Mangoe Lane. By appointment to H. R. H. the Prince of Wales, and H. E. the Viceroy, etc.

One LANDAU, dark-blue, lined to match.

One VIS-À-VIS, painted Brown, lined to match.

One NORFOLK DOG CART, dark blue.

Dykes & Co., Calcutta—"A C and under-spring canoe Landau; an Angular Landau for one horse; ditto ditto for a pair; a Canoe Barouche for a pair; a Miniature circular-fronted Brougham; a Mylord Phæton for a pair; a Ripon Phæton with moveable coach-box; a C spring Buggy; a Newmarket Cart; A cob size game Cart with model of cob and in harness.

East Indian Railway.—Model of a colliery pithead.

East Indian Railway, Locomotive Workshops, Jamalpore.—Model of a Locomotive Engine applied to working paddles of a steamer; Model of Automatic points and signal; Complete set of working parts of a Locomotive.

Elson (S. R.), Master Pilot, Calcutta.—Diagram and pamphlet explanatory of Elson's Proposed new scheme for international marine signalling.

Floyd (J. H.), Jamalpore, Bengal.—Keyless Railway Chair and Sleeper (model in wood).

Government of India Telegraph Workshops, Alipore.—A collective exhibit of Electrical Instruments and Apparatus manufactured and in use in the Department.

Hurrogopul Singh, 73, Toolaputte, Calcutta.—Golden Thread-making Machine.

Johnson (P. B.), Clive Row, Allahabad—Small Warwick Cart.

Jessop & Co., Calcutta.—1 Horizontal Oil Press; Mortar Mill, Castings, Wheels, Pullevs; 1 Length of Wrought-Iron Shafting with Couplings and Plummer block.

Jessop & Co., Calcutta.—Stocks, Dies, Taps, Whitworth's Thread, Iron mounted Bench Cramps; Open, Mouthed Tube Vices.

See also section 1.

Monnier (J.), P. W. Inspector, E. I. R., Muddopore.—1 Railway Engine Model Signal with Alarm Sleeper.

Munro Don & Co., Calcutta—Carriages and Wheels.

Oppenheim & Co., Cawnpore, N.-W. Provinces.—Belting.

Oudh and Rohilcund Railway Company.—Benares bridge. Designs and Model of Plant for sinking water piers.

Public Works Department of Bengal—A Collective Exhibit of Iron from the Government Iron Works, Barrakur, Bengal.

Cast Iron pipes from 3″ to 30″ diam.

Cast Iron Railway Sleepers, Denham-Olphert's patent.

Two Cast Iron Pulley Wheels with Wrought Iron arms: one 6′ and the other 9′ diam.

Cast Iron Plates; Indian Iron Ores; Indian Pig Iron; 4 Cast Iron Pillars and 4Cast Iron Archese.

Cast Iron Railings.

Punjab Northern State Railway—Model of Attock Bridge Staging.

Public Works Dept. Bengal.—Model of Weir constructed at Dehree to feed the Sone system of canals, weir 2·35 miles in length.

Model of Lockgate with Fouracre's parallel motion valve and opening gear.

Model of a Fouracre's Dredger;

Model of a Fouracre's Shallow Well excavator;

Specimens of Building materials used on Sone canal. (The above models and specimens were prepared at the Government Workships, Dehree.)

Sedgwick (Major W.,) R. E. Model of a Hill Railway on the principle of Sedgwick's Patent Hydraulic Lifts for Hill Stations.

Smith (Thomas H.) & Co., Allahabad—Speciality Dog Cart.

Smith (Private), care of Commanding Officer, Naini Tal.—Model of Railway carriage with patent buffers.

Stamp & Stationery Dept., Govt., of India.—Stamp Defacing Machines.

Steuart & Co., Calcutta—Carriages.

See descriptive notice.

Walters (W.), Jamalpore, East Indian Railway Works.—Working model of Horizontal high pressure stationery engine.

Ward (E.) & Co., Kissengunge—Nuddea, Bengal.—Folding and Portable Boats.

Winter (G. K.), Telegraph Engineer, Madras Railway.

Block section complete consisting of 2 Winter's block instruments and 2 Winter's and Craik's starting semaphores, 2 counters, and 28 ebonite cells joined up as two stations, with a section of railway between them.

Winter's electrical intercommunication chains, full size on portable stand, 1 engine bell and 1 guard van plunger;

Model of Stoney and Winter's locking rail switch looks;

Stoney and Winter's locking bar switch locks;

Stoney's Moorkee screen. Stoney's patent punka wheel;

Stoney's Helical excavators.

Stoney's enlarging excavators.

Model of Stoney's undercutting excavators.

Wrigley (W.), Rosa, N. W. P.—Portable Sugarcane Crushing Mill.

Steuart and Co., Carriage Builders, Old Court House Corner, Calcutta,

By Special Appointment to

His Excellency the Right Honourable Lord RIPON, Viceroy and Governor-General of India, G. M. S. I., &c.,

TheEarl of Lytton, The Earl of Northbrook, The late Earl of Mayo,

His Majesty the King of Siam, the Nepal Government, &c.

(Established 1775.)

EXHIBITORS OF

LIGHT CANOE LANDAU, fitted with appliances for the effective opening and closing of Heads and Steps automatically. Noiseless Glass Frames, and Iron skeleton Boot.

LIGHT MINIATURE CIRCULAR-FRONTED BROUGHAM, fitted with anti-Rattlers for all moveable Blinds, and with all the latest improvements.

LIGHT VICTORIA PHÆTON, fitted with concealed front seat, hung on Iron Loops and patent beaded Springs; adjustable to self-driving.

A LIGHT IMPROVED CIRCULAR-FRONTED LANDAULETTE, hung on Elliptic Springs with Insulating Rubber Blocks, fitted with self-acting Steps, Noiseless Glass Frames, and all the latest improvements.

A LIGHT LORNE TANDEM CART, in Wood and Iron, fitted with adjusting Lever, and all the latest improvements.

LIGHT STANHOPE MAIL PHÆTON, fitted with patent Step for Ladies, and all the latest improvements.

Section H.

FOOD PRODUCTS.

(*CLASSES* 110 *to* 136.)

Barry & Co., 5 Lyon's Range, Calcutta, *Phœnix Tea Company*, of Cachar, Limited; Dilkhoosh Tea Estates; Debrooghur Combination; Assam—Tea in bottles of 2½ lbs. each.

Bombay Steam Bakery and Flour Mills, Bombay—Wheaten Flour; Soojee (or Semolina); and Bran.

Bond (Mrs.), Cuttack—Pure Cow's ghee.

Brenton & Co., 1 Old Court House Corner, Calcutta—Indian Teas of different kinds.

Bunka Behari Khan, Tahirpore, Bengal.—Ghee and other food products.

Carew & Co., Limited, Rosa, Chajehanpore, North-Western Provinces—Refined Sugar; Spirits; and vinegar.

SUGAR—
- *Sugar-Candy;
- Loaf Sugar;
- *AAA *Specialité* Sugar;
- AA Grainy white ditto;
- A Crystallised white ditto;
- SG White ditto;
- B Pale Yellow ditto;
- C Yellow ditto.

**N.B.*—(Sugar-candy) and (AAA) are fancy samples, not manufactured for sale in bulk.

SPIRITS—
- XXX Rum, 10 years in wood;
- XX Rum, 6 years in wood;
- X Rum, 4 years in wood;
- R Rum, colored and uncolored;
- S Rectified Spirits of Wine;
- MS Methylated Spirit;
- Sharab Cundli; Sharab Narsinzar; Sharab Zafran. } Specially manufactured for Native consumption

VINEGAR. TREACLE.

Clark (J. A. R.), Tenkasi, Tinnevelli, Madras—Coffee, Clove, and Food Products.
Agents: Grindlay & Co., Calcutta.

Eaton & Co., Madras—Coffee; Tea; Castor-oil; Curry-Stuff; Chutnies; Honey; Jams, and Sauces.

Faizullabhoy, 111 Canning Stteet, Calcutta.—Arrowroot; Tooth-powder.

See also section C.

Holta Tea Company, Limited.—Tea Samples.

Kangra Valley Tea Depot, B. Smyth & Co., Agents, 1, New China Bazaar Street, Calcutta—Tea.

Khan (Sooltan) & Sons, Deobund, S P D Railway—Preserved Fruits; Jams; Jellies; Pickle; Chutnies, &c.

Kirby (W. Lee), Coonoor, Nilgherries, Madras.—Tea,

Meakin & Co., Brewers, Kasauli, Chakrata, Dalhousie and Ranikhet, Punjab—Malt liquors.
Agents, Balmer Lawrie & Co., Calcutta.

Meyers (H. J.) & Co, 14, Government Place, Calcutta—Teas.

Minchin Brothers & Co., Aska, Ganjam, Madras—Sugar and Spirits.

Mukharjee (Joykissen), Utterpara, Hooghly, Bengal—Honey.

Murree Brewery Company, Limited, Gora Gully, North-West Provinces, H. Whymper, Managing Brewer; Agents, Balmer, Lawrie & Co., Calcutta—Ale and Porter.

Naini Tal Brewery Company, Limited, Kumaon, North-Western Provinces—Bottled Beer.

Ray Brothers, 30, Colootollah Street, Calcutta.—Olives, Tipari Jam, Guava Jelly, Chutney, Curry Powder, Curry Paste, Syrups.

Rungmulla Estate, Assam—Tea; Agents, Gillanders, Arbuthnot & Co.

Manufactured on the Rungmulla Estate and Saw-Mills in the rich tea growing District of Luckimpore, Assam, from leaves plucked from pure indigenous and high class hybrid plants. Exhibits Pekoe in 10lb. chests and tins; Pekoe Souchong ditto; Bouquet teas; Rose Pekoe; Rose Pekoe Souchong in tins; Bottles containing ditto.

Speed & Co., Penn Plantation, Alipore, Bengal—Speed's Arrowroot.

Manufactured at the Penn Plantation, Alipore, Bengal, from the tubers of the Maranta Arundinacea, which species alone yields real Arrowroot of the best quality. To obtain it pure, the greatest care and the most scrupulous cleanliness are observed in the processes of extraction, washing and drying, filtered water being used throughout It is packed for market in hermetically closed 1lb. and 2lb. tins, which can be easily opened by running a penknife or pin across three sides and raising the lid, the fourth forms a hinge. It has been awarded medals at the different Exhibitions, where it has been exhibited. Wholesale price, 11*d.* per lb.

EXHIBITS.—1lb. tins labelled and unlabelled, some with wrappers enclosing copy of recipes; 2lb. ditto; 3 bottles containing Arrowroot as in tins, and tubers grown on the plantation; 1lb. and 2lb. tins opened showing the lids raised.

Stanes (Thomas), Glendale and Runnymede, Conoor, Neilgherries.—Tea and Coffee.

Turner Morrison and Co., 6, Lyon's Range, Calcutta—Cossipore Sugar.

Section I.

AGRICULTURE AND HORTICULTURE.

(CLASSES 137 to 143.)

Agricultural and Horticultural Society of Bengal—Agricultural and Horticultural Products; Processes; Implements and Machines.

Assam Railways and Trading Company, Limited, 29, Strand, Calcutta—Plants from Naga Hills and Assam.
See also sections F. & K.

Canal Foundry and Workshops, Roorkee, N.W.P.—Ploughs and Phawrahs.

Carnac Iron Works, Bombay—Watering Cart; Road Roller.
See also sections C. & G.

Chick (W.), 3, Wellesley Square, Calcutta.—Patent Economic Plough.

Crawley (William), Chupra.—Nawab Indian Plough; Nawab Indian Digger.

Jessop & Co., Calcutta.—McRae's Sub-soil Ploughs; Seed Crushing Machine.
See also section G.

Khan (Banka Behary), Secretary, Agricultural Institution, Tahirpur, Rajshahye—Agricultural Products.

Massey & Co., Madras,—Agricultural Implements—Civil and Mechanical Engineers, Manufactures of Engines, Boilers, Iron Girders, Roof and Colonial Machinery, Patentees and Manufacturers of improved Coffee Curing and Pulping Machinery and the Indian Ryots Patent Pipe Plough.
Agents: Emmett & Chambers, Calcutta.

Stalkartt (John), Hope Town—Patent Bullock Plough
Prize Plough at the Agricultural Exhibition, 1864.

The Tea Planter's Agency, F. F. Wyman, Agent, 10, Hare Street, Calcutta—Models of Allen's and Bicknell's Tea-Drying Machines.

Section K.

ETHNOLOGY, ARCHÆOLOGY, AND NATURAL HISTORY.

(CLASSES 144 to 149.)

Assam Railways and Trading Company, Limited, 29, Strand, Calcutta—Weapons and Curios from Naga Hills and Assam.
See also sections F. & I.

Sooltan Khan & Son, Deobund. Feathers.

FINE ART & JEWELRY COURT.

Section A.

FINE ARTS.

(*CLASSES* 1 *to* 6.)

THE LIST OF PAINTINGS WILL BE FOUND AT THE END OF THE CATALOGUE.

Freemasons of Bengal, Royal Arch Chapter—Silver gilt Royal Arch Loving Cup.

Freemasons, Lodge "True Friendship," Calcutta.—China punch bowl.

Luff (J. M.), Hazaribagh.—Delhi Paintings on Ivory.

Hamilton & Co., Jewellers, Calcutta.—Enamels.

This Exhibit includes a rich display of Choice hard Enamels in brilliant colours, each article being mounted in GILT ORMOLU.

Khan (Syed Hossein Ali), 5, Wellesley Street, Calcutta.—Miniature Paintings.

Section B.

EDUCATION AND APPLICATION OF LIBERAL ARTS.

(*CLASSES* 7 *to* 15.)

Marcks (C.) & Co., Rampart Row, Bombay.—Musical Boxes.

Section D.

FURNITURE AND OTHER OBJECTS FOR THE USE OR DECORATION OF DWELLING HOUSES AND OTHER BUILDINGS.

(*CLASSES* 23 *to* 37.)

Hamilton & Co., Jewellers, Calcutta.—Clock, Watches, and their accessories. Bronzes, Ornamental Works in Gold and Silver.

See also Calcutta Court.

Murray (James), 11, Dalhousie Square, East, Calcutta.—Machine-made English Silver Watches.

See also Calcutta Court.

White (J. C.), 17, London Street, Calcutta.—Carved cabinet, Nepalese work.

Section E.

FABRICS, INCLUDING APPAREL, TOILET REQUISITES, AND OTHER OBJECTS OF PERSONAL WEAR OR USE.

(CLASSES 38 to 52.)

Boseck (John), 7, Wellesley Place, Calcutta.—Gold, silver, and amber jewelry.

Browne (James W.), 2, Esplanade, Calcutta.—Tiger claw and Indian Jewelry.

Bundas (Muddoo), 86, Burtollah Street, Calcutta.—Jewelry; Jewelled cloth.

Cooke and Kelvey, Old Court House Street, Calcutta.—Gold and Silver Ware.

2 Richly chased Silver and Gold State Chairs, Silver Cups, Goblets, Race Plates, &c.

2 Magnificent Diamond Tiaras, Diamond Necklace, and a collection of Diamond, Pearl and other gem ornaments.

Dass (Bal Bhudder), Chandney Chauk, Benares.—Mixed fabrics; uinkhabs; dupattas; saries; Silver howdah and chair.

Dass (Rai Buddree), Bahadur, 49, Burtollah Street, Burra Bazaar, Calcutta.—Jewelry.

Dey (Nursing Chunder), Govind Chundra Sen's Lane, Calcutta.—Tiger claw Jewelry.

Dhur (Sumbhoonath), 33, Chunamgully, Calcutta.—Indian-made jewels and curiosities.

Fatak (Azimulla Harman), Benares.—Mixed fabrics; kinkhabs; sheets; gown-pieces; scarves.

Girdherlall and Gopal Roy, 44, Raja-ka-kuttra, Calcutta, and Chandnee Chauk.—Jewelry.

Hamilton and Co., Calcutta.—Jewelry and Precious Stones.

HAMILTON & Co., EXHIBITS in the JEWEL ROOM comprise a magnificent display of DIAMOND JEWELLERY, NECKLACES, HEAD ORNAMENTS. WATCHES, &c., and include the DIAMOND CORONET prepared by them for *H. H. the Maharajah of Cooch Behar*. These splendid ornaments are mounted in the best taste, and are set with large and valuable BRILLIANT and ROSE DIAMONDS of choice quality. In the GOTHIC CASE, H. & Co., exhibit a collection of ARTISTIC SILVER PLATE CUPS, TAZZAS, &c. of their own manufactre, and by permission of the Officers of the Royal Warwickshire Regimesnt they shew also the SILVER AND BRONZE CHALLENGE SHIELD which they have manufactured for that Regiment. Jewellers in Ordinary to H. E. the Viceroy, Calcutta.

Luff (J. M.) Hazaribagh.—Lingam; Shawls; Jewelry, etc.

LINGAM.—This Ancient relic of Hindoo faith–1700 years old–1000 years in Temple of Raipatura near Delhi, subsequently nearly 700 years in Mogul Treasury, Delhi—consists of a very fine *Chrysoberyl Catseye* set in a large *Yellow Topaz*, on an Indian Gold Vase, encrusted with *Diamonds*, and set round with nine gems, representing the *nine charms*, viz., *Diamond, Ruby, Sapphire, Catseye, Coral, Pearl, Garnet, Yellow Sapphire, and Emerald.*

This exhibit, about 2½ inches high, is shown under a glass dome on a marble pedestal.

In a glass case are exhibited—

Specimens of old Indian fabrics, Cashmere Shawls and Kincob.

Moss Agates or Mocha Stones.

An Onyx Necklace.

A curious Seal, of Gold and Pearl.

A large Star Sapphire.

A collection of other ornamental Art Works.

A collection of Meerschaum pipes, (Austrian.)

Majid (Hafiz Abdul).—Kinkhobs; dhooties, &c.

Marcks (C.) & Co., Rampart Row, Bombay.—Jewelry, Spectacles.

Moteeram, 59, Clive Street, Calcutta, and Chandnee Chauk, Delhi.—Shawls; Jewelry.

Orr (P.) and Sons, Madras.—Jewelry and Silver plate; Brass Ecclesiastical work; Electro-Plate Mounted Pottery.

Kartic Sett, Burtollah Street, Calcutta.—Jewelry.,

Watson & Co., Esplanade Hotel, Bombay.—Kutch silver.

Section K.

ETHNOLOGY, ARCHÆOLOGY, AND NATURAL HISTORY.

Brownfield (C.), The Penn, Alipore, Calcutta.—The horn of a Bull Rhinoceros hot by him in Kamrup District, Assam.

CEYLON.

THE island of Ceylon, lying between 5° 53′—9° 51′ N. lat, and 79° 41′ 40″—80° 54′ 50″ E long, is bounded by the Indian Ocean, the Bay of Bengal, and the Gulf of Mannar. Its greatest length from north to south, that is, from point Palmyra to Dondera Head, is 267 miles ; the extreme breadth, from Colombo on the west to Sangemankande on the east coast, is 140 miles : and its circumference, 760 miles Divided into seven provinces, Ceylon has its area and population distributed as follows :—

Provinces.	Area, English square miles.	Population.
Western	3,345 ...	853,913
North-Western...	3,028 ...	304,453
Southern	1,927 ...	439,730
Eastern	3,510 ...	124,619
Northern	3,150 ...	309,966
Central	5,770 ...	544,874
North-Central	3,972 ...	69,341
Totals	24,702 ...	2,646,896

Of the total population enumerated there are :—Europeans, 6,600, mainly British ; European descendants, 15,500 ; Ceylon natives, 1,837,000 ; Tamils, 595,000 ; Moormen, 179,000 ; and other coloured races, including Malays, Afghans, Arabs, Persians, &c., 13,000.

The religious creeds are represented, approximately, as follows :—Buddhists, 1,670,000 ; Gentoos (worshippers of Siva, Vishnu, and other gods of the Hindu pantheon), 512,000 ; Mahomedans, 189,000 ; and Christians, comprising 204,000 Roman Catholics and 60,000 Protestants, 264,000.

The chief languages spoken in the island are Cingalese and Tamil. The former is founded on the Sanskrit, with a considerable infusion of Pali and is peculiar, except in its Sanskrit roots, to Ceylon. Tamil, the leading branch of the Dravidian family, is common to about 16,000,000 people in Ceylon and Southern India. A Portuguese *patois* still retains its hold among the European descendants, while knowledge of English is rapidly advancing.

The island was first settled in 1505 by the Portuguese, who established colonies in the west and south, from which, however, they were ousted in 1658 by the Dutch In 1795-6 the British Government took possession of the foreign settlements annexing them to the Madras Presidency ; but two years subsequently Ceylon was formed into a separate Crown colony In 1815 war was declared against the native Government of the interior ; the Kandyan king was taken prisoner, and the whole island fell under British rule The Kandyans now equally with the rest of the Ceylon population, are loyal, contented, and pacific ; so that the small military force which the colony supports is ample for repressing all possible internal disturbances At the same time, the police system is considered by no means perfect, the material to work on being far from good Reforms in the regular police have, however, been carried out, the total number, under an Inspector-General, with provincial superintendents, being at present 1,500, and costing Rs. 630,000 per annum for the department altogether. About fifty of the constables, as well as all the superintending officers, are Europeans The regular police are taught rifle-drill, and in furnishing guards for prisons, escorts for treasure, &c., they, to a great extent, perform duties that previously fell to the military—mainly to the late Ceylon Rifle Corps.

The present form of government was established by letters-patent of April, 1831, and supplementary orders of March, 1833. According to the terms of this constitution, the administration is in the hands of the Governor, aided by an Executive and a Legislative Council; the power of making laws being vested in the latter, concurrently with the legislative power of the Crown, which exercises that right by orders in Council. Five of the principal officers of the Government—*viz.*, the Officer commanding the troops, the Colonial Secretary, the Queen's Advocate, the Treasurer, and the Auditor-General—presided over by the Governor, constitute the Executive Council. The Governor, being personally responsible to the Home Government, can consult the Executive Councillors, but is not bound to follow their advice. The Legislative Council is composed of fifteen members, including those of the Executive, four other principal Government officers, and six unofficial members selected by the Governor with reference to the equitable representation of the various classes and interests.

All appointments to, or promotions in, the Civil Service, with salaries over Rs 2,000 per annum, rest in the Secretary of State; but, practically, all appointments, except to the higher offices, are in the hands of the Governor For writerships in the Civil Service four gentlemen are named for each vacancy by the Secretary of State or the Governor, and the candidate who receives the greatest number of marks is appointed With salaries more moderate in Ceylon than in India, there is a Civil Service numbering several hundreds for 2¾ millions of inhabitants instead of about a dozen civilians with native assistants for a similar population in India.

Through the agency of a Government Department of Public Instruction and a grant-in-aid system, availed of chiefly by the various missionary societies, 75,000 children, or 1 in 32 of the population, are receiving instruction in English and the Vernaculars. Private schools, not connected with missionaries or religious bodies, are few and ill-supported. A knowledge of vernacular reading and writing generally very imperfect, is communicated in some of the Buddhist temples and native schools. Education in missionary schools is strictly Christain, while in those of the Government it is customary, when no objection is offered to read the Bible during the first hour. Attendance then is not compulsory, but pupils seldom or never absent themselves. Science is now practically taught in the principal educational establishments in Colombo, and it is hoped, technical training in agriculture and useful trades will be added. The cost of the Government Educational Department (educating some 18,000 pupils) is Rs 3,00,000 per annum (besides grant-in-aid, nearly 2,00,000), of which Rs 28,000 is returned in fees, sale of books, &c. The total outlay on education, public and private, is about Rs 7,00,000 (£70,000), against Rs 70,00,000 (£700,000) supposed to be spent by the population on intoxicating drinks.

The climate of Ceylon, which, for the tropics, is generally healthy, varies in different parts, being hot and arid on the plains of the North and East, warm and humid on the soush-west coast, and cool and wet in the mountain regions. Middle altitudes of mountain ranges, and the immediate vicinity of rivers are deemed unhealthy, but fever seldom occurs above 3,000 feet altitude, and is rare within the influence of sea breezes. In Ceylon towns the rate of mortality ranges from 1·65 per cent. for Jaffna to 4·06 for Kurunegala, that for Colombo being 1·76 per cent. The military death-rate in Ceylon is down to 25 in 1,000; and this might be still further reduced by sanitary measures The perfection of climate is supposed to be found at and around Bandarawela, on the plateau of the Uva principality, at an elevation of 3,900 feet, with an average annual rainful of 86·21 inches in 120 days. The hot months at Colombo are February, March, and April, when all who can do so remove to the hilly regions—Nuwara, Eliya, especially The heat in Ceylon, however, seldom reaches 90° in the shade; 93° in April being the maximum in Colombo, where the mean of the year slightly exceeds 80°, sea breezes tempering the heat for a large portion of the year.

Though exposed to the south-west monsoons, blowing from April to September, and the north-east, from November to February, Ceylon is seldom visited by violent storms, and is moreover, most fortunate in being outside the region of the cyclones peculiar at certain seasons to the Bay of Bengal, as well as being unaffected by the hurricanes of the Mauritius Seas, and the volcanic disturbances of the Eastern Archipelago.

Ceylon, while presenting many points of resemblance in its flora and fauna to the neighbouring peninsula of India, differs in some respects, and assimilates rather

to the Malayan Archipelago. Cinnamon, for which the island has always been famous, and rice, are believed to be indigenous, while the more profitable products, coffee and cocoanuts, are introductions Most South American plants readily adapt themselves to the climate, as is proved by the recent success of cinchona and cocoa. Tea also grows luxuriantly Ceylon is noted for ferns, balsams, and orchids Calamander, the most beautiful of the cabinet woods, is becoming very scarce, but ebony, satin-wood, and others, with serviceable timber, are plentiful in the forests Palms and bamboos are especially beautiful and luxuriant; few objects in nature being more magnificient than a talipot palm in flower, and few more elegant than the slender areca palm, or the tall, bending green bamboo, of the mountain forests of Dimbula The cocoanut palm luxuriates along the western and south-western coasts, just as the palmyra, with its five hundred different uses to the natives, abounds in the Jaffna Peninsula Though free from tigers and lions, the island abounds with animals, the elephants of Ceylon being especially famous Reptiles, also, and birds are very numerous, but songsters are deficient River fish, chiefly carp, are few in number and of inferior quality; but, probably, no sea-coast in the world is richer in fishes and shells. Myriads of insects, including butterflies, moths, beetles, bees, wasps, mosquitoes, white, black, and red ants, scorpions, centipedes, multitudes of curious spiders, &c., are found in Ceylon, and the periodical swarms of butterflies are peculiarly interesting. In the beauty and number of its precious stones, Ceylon stands unrivalled. A pearl-fishery of immense value exists on the north-western coast.

The public revenue of Ceylon, which has doubled in 15 years, trebled in 25 years' and nearly quintupled in 40 years, averages Rs 15.000,000 per annum, although the cinnamon monopoly, fish tax, &c., have been abandoned, and the customs duties equalised and moderated The civil, judicial, ecclesiastical and medical expenditure, with that on public instruction, police, prison establishments and services, amounts to Rs 6,600,000; that on pensions amounts to Rs 450,000; on military, Rs 1,200,000, ; on roads and buildings, Rs 3,500,000; and on railway services (against large incomes), Rs 1,700,000. The foregoing, together with minor items, such as conveyance of mails, immigration, &c., just about equals the revenue.

The value of imports is estimated at Rs 60,000,000, and of the exports, 55,000.000. This gives 115 000,000 as the total value of Ceylon commerce—nominally, £11,500,000 sterling, or, excluding specie, £10,000,000.

The staple imports are mainly rice, cotton, goods, coal, cattle, and salt fish The staple exports comprise—coffee, tea, cocoa, cinnamon, cinchona bark, coir, cocoanut oil, plumbago, ebony, and other kinds of timber.

The principal towns of Ceylon are—Colombo, with 106,000 inhabitants; Galle, 52,000; Kandy, 19,000; Jaffna, 38,000; and Trincomalee, which has a population of about 10,000. The last-named, though no longer the chief seat of civil government in the eastern province, continues to be of surpassing importance as the chief naval port in the east.

A line of railway 74½ miles long, between Colombo and Kandy, was opened in August 1867, to aid in the establishment of which a public debt, to the amount of £900,000, was raised in 1861-7, its entire cost being £1,740,000.

An extension of the line to Nawalapitiya from Peradeniya (17 miles) was opened in December, 1874; and another from Kandy to Matale (17½ miles) was opened in 1880. Besides the foregoing, a seaside line has been constructed from Colombo to Kalutara (27½ miles); and in August, 1880, the first sod was turned of an extension from Nawalapitiya for 42 miles to Upper Dimbula, whence it is to be carried 25 miles further to Haputale. Altogether, about 180 miles of railway, all on the 5½ feet gauge, have been opened or are under construction, and other lines are contemplated.

CEYLON COURT.

Section A.

(CLASSES 1 to 6.)

Skeen (W. L. H) and Co, Colombo.—Photograph of Ruined Cities and Views

Kandy Art Association, Kandy—Painted tiles ; plates ; bowls ; knives ; swords ; fans, &c.

Section B.

(CLASSES 1 to 15)

Leekr (F), Government Printer, Colombo—Printed books.

Section F.

(CLASSES 53 to 81)

Mooney (M), Government Jailor, Colombo—Coir Mats

Leechman and Co, Colombo—Coir ; Fibre and Matting

Leechman and Co., Colombo—King Cocoauuts and ordinary kind

Section G.

(CLASSES 80 to 109.)

Von Possner and Walker, Colombo—Ice Safe.

Section H.

(CLASSES 110 *to* 136.*)*

Von Possner and Walker, Colombo—Ærated Waters

Fernando (N S), Colombo—Nutmegs and Cloves

Rajspokse (S De), Colombo and Kaderane—Cinnamon

Drieberg (J), Jaelle—Cinnamon

Owen (T. C.), Oonoonagalla—Cardamons

Seovell (Arthur E.), Strathellie—Tea

Mullens (Duncan), Adam's Peak—Tea

Armstrong (C S), Rookwood—Tea

Parsons (H G), Calsay—Tea

Wright (A E), Gneiss Rock—Tea

Meggurson (W), Kadawella—Tea

Hnghes(J Royden), Gallebodde—Tea

Fairweather (David), Sambawatti.—Tea

Daly (D O), Campden Hill—Tea

Shand (Francis L), Barra—Tea

Aspland (R), Norton—Tea

Hay (C A), Blackwater—Tea

Kyd (Geo)., Windsor Forest—Tea

Owen (T C.), Avisawella—Tea

Owen (T C.), Oonoonagalla—Tea

Volkar (H J), Pallekella—Cocoa

Ingleton (J K), Rajewelle—Cocoa

Lawrie (Wm Forbes), Delgolle—Cocoa

Laurie (Wm. Forbes), Siberia—Liberian Coffee

Deane (H Drummond), Kintyre—Arabian Coffee

Section K.

(CLASSES 144 *to* 149.*)*

Streeter and Co, Colombo and London—Collection of Ceylon Gems.

STRAITS SETTLEMENTS.

THESE Settlements (so called from their situation in the Straits of Malacca), comprising Singapore, Penang, Province Wellesley, and Malacca, have an area of about 1,440 square miles, with a population of 423,384 in 1881.

The Government consists of a Governor, assisted by an Executive Council and a Legislative Council

The present Governor is Sir FREDERICK A. WELD, K.C.M.G:

	Revenue.	Expenditure.
1869, ...	£279,022 ...	... £247,425
1882, ...	£493,031 ...	... £468,910

Imports, 1882.	Exports, 1882.
£20,305,266. ...	£18,31[illegible],735.

SINGAPORE, the seat of Government, is an island about 25 miles long by 14 wide, situated at the southern extremity of the Malayan Peninsula, from which it is separated by a narrow strait, about ¾ mile in width The town, situated in latitude 1°16′ N., and longitude 103°50′ E., has about 120,000 inhabitants.

PENANG, or Prince of Wales' Island, is about 15 miles long and 9 broad, situated off the west coast of the Malayan Peninsula, in latitude 5°18′ N., longitude 100°4′ E., and contains a population of about 75,000,

PROVINCE WELLESLEY, on the mainland, opposite Penang, is a strip of coast about 45 miles long, and averaging 8 in width, and has a population of about 75,000.

MALACCA is situated on the western coast of the peninsula, between Singapore and Penang, and is about 42 miles in length, and from 8 to 24½ in breadth. The population is about 80,000, of whom 58,000 are Malays. The Chinese colonists, some 13,500 in number, have done much for the material prosperity of the colony, and include some of the most intelligent and wealthy of the merchants.

Singapore possesses very great facilities for docking and coaling vessels of all classes. There are four large wharves, with storing sheds, workshops. wet and dry docks, and immense supplies of coal.

The exports comprise: Gutta-percha, gambier,* pepper india-rubber, horns, hides, canes, sugar. rice, sago, tapioca, spices, dyestuffs, tea, coffee, tobacco, gums, tin, woods, preserved fruits.

The imports, for the most part, consist of Manchester goods.

Under the protection of the British Government, and advised by British Officers responsible to the Governor of the Straits Settlements, are three Native Malay States covering the country which lies between Penang and Malacca. They are Pêrak, Sĕlângor and Sungei Ujong, with a total coast line of about 244 miles and an average depth inland of about 50 miles. It is estimated that the populations of these States are :—

Pêrak, ...	100,000
Sĕlângor, ...	50,000
Sungei Ujong, ...	8,000

of whom 30 % are Chinese.

	Revenue, 1882.	Expenditure, 1882.
Pêrak, ...	... £ 181,077	... £ 183,783
Sĕlângor,	... ,, 60,085	... ,, 51,817
Sungei Ujong,	... ,, 21,883	... ,, 24,292

* Gambier is a compressed extract from the leaves of a shrub (Uncaria Gambir), used principally for dyeing purposes but also in a refined form it is chewed by the Natives of the East, with sirih leaf and betel-nut.

British Residents were first appointed to these States in 1874, and their resources have since that date been greatly developed.

The principal export of the Native States is tin, but experiments in the cultivation of coffee, tea, and cinchona have so far succeeded that a great agricultural future is anticipated for these countries, The highest ranges reach to 8,000 and 9,000 feet above the sea-level, and the whole country is intersected by naviable rivers.

The Straits Settlements form the natural emporia for the products of the Malay Peninsula, as also the mart which supplies the necessities of the numerous important countries surrounding it, such as Java, Sumatra, Siam, Borneo, Cochin-China, and many others of less importance.

STRAITS SETTLEMENTS COURT.

Section A.

(CLASESS 1 to 6.)

The Govt. Straits Settlements—Photographs.

Section C.

(CLASSES 16 to 22.)

The Govt. State of Selangor—165 specimens of Native medicines collected in the Malay State of Selangor; prepared and used by Chinese

Goodenough (R. B.) Singapore.—Dysentery Powders,

DeSilva (Apothecary), Government Medical Department, Singapore.—Patent Hospital Bed for fractures,

Section D.

(CLASSES 23 to 37.)

The Govt. Straits Settlements.—Cane chairs and tables; cane matting.

Fo Hup, Perak,—Specimens of Tin Splashes.

The Govt. State of Selangor.—Specimens of Block Tin ware.

Fo Hup, Perak,—Specimens of Block Tin ware.

The Govt. Straits Settlements.—Specimens of Malay mats.

Maxwell (Hon. W. E), Singapore.—Specimens of Malay hangings; mats and embroideries,

Section E.

(CLASSES 38 to 52.)

The Govt. Straits Settlements.—Silk Sarongs; veil and handkerchief.

H. H. The Maharaja of Johor. G.C. M. G; K, C. S. I—Specimens of Malay clothing.

Swettenham (F. A).—Specimens of of Malay clothing.

Section F.

(CLASSES 53 to 81.)

The Government, State of Perak.—
Specimens of Tin oxide and wash dirt from Kamûnting District,
Specimens of Tin oxide from Asam, Kumbang District,
Specimens of Tin oxdie from Tupai District,
Specimens of Tin oxide from Salak District,
Specimens of Tin oxide and wash dirt taken at various heights up to 3,400 ft, in the Lârut and Sâlak Districts,
Specimens of oxide of Tin and Quart' from Lârut, Sâlak, Kinta and Batang Padang,
Specimens of smelted Tin from, Sâlak,
Do do from Tupai, Lârut.
Do do from Kamùntingz Lârut.
Do do from Asam, Kumbang, Lârut.
Samples of wash dirt, washed Tin One and various Strata in which Tin is found in Perak

The Govt. State of Selangor. Specimens of Tin oxide, wash dirt and smelted Tin from variousMines in Selangor.

Newton (Howard), Singapore.—Specimens of Malay Woods.

Johor Steam Saw Mills Company.—Specimens of useful Malay Timbers.

The Govt. State of Selangor.—Specimens of Gutta Grip ; Gutta Pùtele ; and Gutta Tâban.

Paterson Simons & Co., Singapore.—Specimens of India-rubber and Gutta-percha; Rattans, various specimens.

The Government, State of Perak.—Specimens of Gutta.

Brandt & Co., Singapore.—Split rattans for chair-making, No. 1 and No. 2 quality. Rattan, coir in different sizes and numbers. Rattan splints planed, different sizes and numbers. Rattan splints rough, different sizes and numbers. Rattans coarse for tying, rope-making, &c. Rattan shavings for mats, ropes, hawsers, and rooms. Rough Shavings dyed with Aniline dyes. Brooms. Mats. Ropes. Rattan shavings frise, (for stuffing mattresses).

Fisher (J), Singapore.—Citronella oil ; Pepper oil ; Nutmeg oil ; Patchouli oil; Nutmeg paste or fixed oil of nutmeg ; Essential oil obtained from the seeds of the Balsam of Peru (Myroxylon Perurae).

Brandt & Co., Singapore—Cocoanut oil.

Brandt & Co., Singapore.—Vegetable Tallow (Minyak Tingkawang) oil cake.

Ayer Itam Coir Company, Penang—Coir fibre.

The Government, Straits Settlements—Krang shell.

Paterson, Simons & Co., Singapore.—Gum Copal.

The Government, State of Selangor—Specimens of Damar (the Arsenious exudation from trees).

Goodenough (R. B.), Singapore.—Extract of Neraattum, permanent dye.

Goodenough (R. B.), Singapore Extract of Neraattum for tanning.

Paterson Simons & Co., Singapore, Cube gambier.

Deti and Langkat Cigar and Cigarette Manufacturing Co., Penang,—Samples of various brands of Cigars and Cigarettes made from Tobacco grown in Sumatra.

Section H.

(CLASSES 110 *to* 136.*)*

Johor Tea Company.—Pekoe Souchong ; Orange Pekoe ; Pekoe Fannings.

The Johor Coffee Company, Johor, —Liberian coffee ; Coffee Arabica.

Hill, Lister & Kay, Linsum Estate, Sungei Ujong.—Liberian coffee

The Government, State of Perak. —Liberian coffee in parchment

Paterson Simons & Co., Singapore.— Black pepper ; White pepper.

Glugor Estate, Penang, (Brown & Co) —Nutmegs ; Mace

Sandilands (Hon'ble G. M.), Penang.—Pepper.—Acheen, Penang, West Coast, Sumatra and Trang.

Hill, Lister Kay, Linsum Estate, Sungei Ujong—Cocoa.

Paterson Simons and Co. Singapore— Sago flour, Batu Pahat Company ; Sago, large, medium and small pearl, Singapore ; Tapioca flour and small flake, Singapore ; Tapioca flour, small and medium flake, small, medium and large pearl, Malacca.

Trafalgar Estate, Singapore, (Mr. Knaggs).—Tapioca flour ; Tapioca flake, small, fine, medium and bullets ; Pearl Tapioca.

Malakoff Estate, Penang, (Mr. de Mornay).—Tapioca flour, flake and seed.

Penang Plantations Company, (Mr. Roberts).—Tapioca flour, flake and pearl.

The Government, State of Selangor —Specimens of ghee.—

Favre (C.), Singapore.—Conserve D'Ananas au naturel ; Pineapple in Syrup ; Preserved Durian ; Preserved Mangosteen ; Jack Fruit ; Breadfruit, Palm Fruit and Papaya in syrup ; Crystallized Pineapple, Ginger and Papaya

Bastiani (J.), Singapore.—Conserves d'Ananas au naturel ; Conserves d'Ananas au Sirop.

Favre (C.), Singapore.—Soursop, Nutmeg and Guava jelly ; Pineapple Marmalade.

Goodenough (R. B.), Singapore,— Astringent Bitters.

Bastiani (T.), Singapore,—Sirop d'Ananas.

Section I.

(CLASSES 137 *to* 143.*)*

Glugor Estate, Penang.—Specimens of rice grain.

Section K.

(CLASSES 144 *to* 149.*)*

Maxwell (Hon'ble W E.), Singapore.—Collection of Malay weapons.

Walker (Capt.), 28th Regiment, Perak.—Collection of Malay weapons.

The Govt. State of Selangor.—Models of Boats; Fishing Stakes and Nets used by Malays.

Syers (H. C.) Selangor.—Skulls of Malay animals.

The Govt. Straits Settlements.—Collection of stuffed birds from Malacca.

BRITISH EXHIBITS.

Section A.

FINE ARTS.

(*CLASSES* 1 *to* 6.)

Constable (W. H.), The Cambridge Stained Glass Works, The Avenue, Cambridge.—Stained Glass Window of two lights — Subject, "Christ's Commission to St. Peter," under canopies and vases.

Doulton & Co., Lambeth, London (Agents for the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta).—Terra Cotta Scultures; Art Pottery in Doulton Ware; Lambeth Faience; Impasto; Pâte-sur-Pâte; Silicon, &c.

The Exhibitors are the originators of all the foregoing wares.

Messrs. Doulton and Co. have secured the highest awards at all the principal International Exhibitions, including those of London, Vienna, Philadelphia, Paris, Sydney, Melbourne; and at Amsterdam, "by acclamation." At Paris they were awarded the Grand Prix and Legion of Honour.

(See also Sections C., D., F., G. and I.)

Eyre & Spottiswoode, London. —Lithographic and Art Printing; Christmas, New Year, and other Cards.

The Exhibitors desire to call special attention to the artistic merit and originality of design displayed in these small works of art, in which the feeling and touch of the artist are faithfully reproduced.

An important feature in the work of this house is the printing and publishing of Illustrated Calendars.

Included in the Collection now shown, is the first of a series of productions of old Ballads in old Missal style.

(See also Section B.)

Heaton (Ralph) & Sons, The Mint, Birmingham.—Coins; Medals; Tokens.

(See also Sections D. & G.)

Hildesheimer (S.) & Co., Silk Street, Whitecross Street, London (Agents for the Exhibition: Ledger, Smith and Co.). — Oleographs; Christmas Cards; Reliefs.

Langdale (E. F.), 72 and 73, Hatton Garden, London.—Water-Colour Drawings; Views of Calcutta, signed and dated "H. Daniels, 1783."

Lewis (Abel), Finch Road, Douglas, Isle of Man.—Photographic Portrait Studies, Photographic Landscapes.

Manfield (H.), Northampton. — Photographs of English Landscapes; Photographs of Interiors.

Marsh Bros., 3, Hart Street, Henley-on-Thames.—Photographs.

"Pictorial World" (PROPRIETORS OF THE), 149, Strand, London.—Original Sketches.

(See also Section B.)

Renwick (George), 20, Station Street, Burton-on-Trent. — Photographs.

Tuck (Raphael) & Sons, 72 and 73, Coleman Street, City, London.—Oleographs; Chromos; Christmas and other Cards; Ornamental Terra Cotta Plaques, &c.

(See also Sections B. & D.)

Waterlow & Sons, Limited, 25, 26 and 27, Great Winchester Street, London. — Specimens of Fine Commercial Engraving: — Bank Notes; Postage Stamps; Bonds; Security Cheques, &c., Lithography, and Vellum Illuminating.

This Company has the most perfect system of mechanical appliances for the production of high-class and artistic Engraved Work, more especially for Bank Notes, the intricate nature of the geometric white line work in which requires the most elaborate and expensive machinery to produce, and has been found successfully to baffle all efforts at imitation. This work is also found most useful upon all documents which require to be rendered secure from fraudulent imitation.

BANK NOTES.—The specimens exhibited are selected from many hundreds, and will bear the closest inspection.

SECURITY CHEQUES.—The Duplex Security Cheques exhibited are printed with two combinations of chemically prepared Inks, offering every security against fraudulent alteration. Any attempt to tamper with the writing on the cheques immediately discolours the paper, whether acids or alkalies are used, as will be seen by the specimens. These cheques are largely in use by many of the leading bankers in all parts of the world.

ILLUMINATED VELLUMS. — These are all done by the most careful hand labour. They represent an art carefully cultivated by the Company, which, although practised centuries ago by the monks, had almost died out. The Company has had the honour to illuminate in this way many addresses to Her Majesty the Queen, to the Prince of Wales, and to most of the crowned heads in Europe. The specimens exhibited will repay most careful and minute inspection.

The Exhibitors have been awarded Medals at the following International Exhibitions:—

PARIS, 1855 (Two).
LONDON, 1862.
PARIS, 1878.
SYDNEY, 1879.

(*See also Section B. and F.*)

Webb (Miss A. M.), 73, Kensington High Street, London. — China Plaques—"Court Favourites in the Reign of George III."(two), £15 15s. each; "Nora," £10 10s.; "Portrait of a Lady," £5 5s.

Van der Weyde (H.), 182, Regent Street, London. (Agents for the Exhibition: Maynard, Harris and Co.— Photography by the Electric Light, and Artistic Reproductions therefrom.

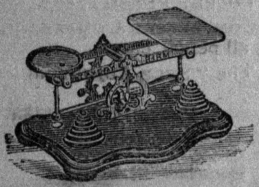
York & Son, 87, Lancaster Road, Notting Hill, London.— Photographic Optical Lantern Slides.

Section B.

EDUCATION AND APPLICATION OF LIBERAL ARTS.

(*CLASSES 7 to 15.*)

Avery (W. & T.), London and Birmingham.—Letter Balances, with and without loose weights; Machines for Weighing Postal Parcels and Letters.



Letter Balances as illustrated above with two sets of weights (English and Indian) may be obtained of the Exhibitors, who are contractors to the British Postal Service for the supply of Balances.

Avery (W. & T.), London and Birmingham.—Scales, &c., for Photographers.

These Scales for Photographers' use are supplied with either brass or glass pans, and in oak or mahogany boxes, with weights complete.

(*See other Entries in this Section, also Sections C., D., G. and I.*)

Briggs & Co., 3, Marsden Square, Manchester. — Transferring Papers for Embroidery.

"British Trade Journal" (The), 113, Cannon Street, London.—Specimen Copies of the "British Trade Journal," bound and unbound, with its supplements.

Brown (William) & Co., 40 and 41, Old Broad Street, and 38—40, St. Mary Axe, London.—Account Books; Paper; Stationery, &c.

(*See Descriptive Notice.*)

Causton (Sir Joseph) & Sons, 47, Eastcheap, London (Agents for the Exhibition; Maynard, Harris & Co.). — Show Bills; Iron Show-Tablets; Account Books; and other Specimens of Printing.

Chambers (William and Robt.), 47, Paternoster Row, London; and 339, High Street, Edinburgh.—School Books; Encyclopedias; Dictionaries; Reference Books; General Literature.

Cohen (B. S.), 24, Great Prescot Street, London. — Black Lead and Coloured Pencils; Everpoint Leads; Pencil-Sharpeners, &c.

(*See Descriptive Notice.*)

Collins (William), Sons & Co., Limited, London and Glasgow (Agents for the Exhibition: Ledger, Smith & Co.).—Stationery; Account Books.

Daniell (S. A.), Edward Street, Birmingham (Agents for the Exhibition: Balmer, Lawrie & Co., 5, Clive Street, Calcutta.—Copying Presses.

(*See also Section G.*)

Brown (William) & Co., 40 and 41, Old Broad Street, and 38—40, St. Mary Axe, London.—Papers of all Descriptions; Stationery; Account Books.

This Collection includes:—

LEDGERS;
JOURNALS;
CASH BOOKS;
INVOICE BOOKS;
ACCOUNT SALES BOOKS;
PRIVATE LEDGERS;
BANKERS' PASS BOOKS;
BANKERS' BILL CASES;
DOCUMENTARY BILL CASES;
BILLS OF LADING CASES;
LETTER COPYING BOOKS, white, and of patent buff copying paper, thick and thin.

Any of the above-mentioned books are ruled and printed, as required, by the newest machinery.

Books marked A, C, E, G, I are of best hand-made papers; B, D, F, H, J are of good and useful machine-made papers.

The Exhibitors desire to call special attention to the quality and finish of the Private Account Book Sets (Ledger, Journal, Cash Book) X, Y, Z and AA to LL.

There are also included in the Collection:—

WRITING PAPERS (Machine and Hand made) of the most approved makes, and ENVELOPES of secure shapes (strong paper, and ordinary kind), such as supplied to the London Banks and the Colonial Banking Establishments.

The Firm has been established for more than half a century at the address in Old Broad Street, London, as given above.

BANKERS' WORK — SECURITY CHEQUES, BILLS OF EXCHANGE, WATER MARKS, &c.—on the same principles as those adopted by the Bank of England for preventing fraudulent alterations, is executed by the Exhibitors, who also give special and careful attention to Merchants' Indents.

Messrs. William Brown & Co. are represented at Calcutta by Messrs. SINCLAIR, HAMILTON & CO., through their Agent, Mr. HUGH C. ROBERTSON, 35, Clive Street.

Cohen (B. S.), 24, Great Prescot Street, London.—Black Lead and Coloured Pencils; Everpoint Leads; Pencil-Sharpeners, &c.

This collection includes:—

ARTISTS' PENCILS (Compressed Cumberland Lead);

ACCOUNT BOOK PENCILS, the marks of which can be easily rubbed out;

REPORTERS' PENCILS;

ALEXANDRA DRAWING PENCILS;

INK PENCILS (Red, Blue and Black);

POCKET PENCILS, &c.;

COMPRESSED CUMBERLAND LEADS, fit all pencil cases.

The "SELF-ADJUSTING"

PENCIL-SHARPENER,

as exhibited, points all pencils.

Prize Medals have been awarded to the Firm for excellence of quality at the International Exhibitions of London, Dublin, Paris, Amsterdam, Lima, and Moscow.

The Exhibitor, whose business was established in 1803, is Contractor for the supply of Pencils to the British and Indian Governments.

Dean & Son, 160, Fleet Street, London.—Illustrated and other Books for children.

Enamel Sign Company. Works: Wolverhampton; Show Rooms: Devonshire Square, Bishopsgate, London.—Enamel Tablets for advertising; Street Plates; Railway Station Plates, &c.

Eyre & Spottiswoode, London.—Bibles; Prayer Books; Church Services.

(*See Descriptive Notice.*)

Eyre & Spottiswoode, London.—Bibles; Prayer Books; Church Services.

The publications issued by Messrs. Eyre & Spottiswoode are used on all special state occasions, as also for the private devotional use of the Queen's household.

The Exhibitors desire to call special attention to the New Marked Church Bible in use in Westminster Abbey, as well as in more than two thousand Cathedrals and Churches in England and Wales.

Another Bible issued by the Firm, viz., *The Sunday School Centenary Bible, or Variorum Teacher's Bible*, combines the familiar Reference Bible, the Queen's Printers' *Aids to Students of the Holy Bible*, by Messrs. Cheyne, Green, Sayce, and other authorities, and the Queen's Printers' *Variorum Bible, or Authorised Version, with a complete Selection in English of the best Various Readings and Renderings of the Text advocated by Hebrew and Greek Scholars*, edited by Messrs. Cheyne, Driver, Clarke, Goodwin, and Sunday.

The occasion of the issue of this Bible was, as its name would imply, the Sunday School Centenary.

The subjects of geography, botany, zoology, poetry, music, money and weights, politics, chronology, and history of the Bible were all treated in this work by the most eminent men of the day, including Sir Frederick Madden, probably the only authority on Hebrew money and weights, and Mr. Sayce, pre-eminent as an Orientalist.

Upon its appearance the English press, general and local, religious and secular, was unanimous in commendation of the work as a fitting compliment to the memory of Robert Raikes, the printer and journalist, and founder of Sunday Schools.

All the publications issued by the Exhibitors are well known for the excellence of their printing, and the substantial and elegant qualities of the paper and binding,

(*See also Section A.*)

Faber (Johann), 10, Paternoster Buildings, Newgate Street, London, (Manufactory: Nuremberg, Bavaria) —Lead and Coloured Pencils; Ink and Pencil Erasers; Slates, &c.

Fairholme & Co., 99, Shoe Lane, Fleet Street, London.—"Cyclostyle" Writing and Copying Apparatus.

Field (J. C. & J.), Lambeth, London.—Sealing Wax.

(*See also Section F.*)

Fleming (A. B.) & Co., Limited, 15, Whitefriars Street, London; and Caroline Park, Edinburgh.—Printing Inks.

(*See also Section F.*)

Foreign Art Pottery Co., 27 to 31, Hatton Wall, London.—Artists' Colours and Materials, &c.

(*See also Section D.*)

Goodall (Charles) & Son, Camden Works, Great College Street, Camden Town, London. City Warehouse: 17, St. Bride Street, Ludgate Circus, London.—Christmas Cards; Playing Cards; Drawing Boards; Programmes; Menus; Writing Papers; Fancy Stationery.

(*See Descriptive Notice.*)

Hockin, Wilson & Co., 38, Duke Street, Manchester Square, London. —"Ruby" Marking Ink.

(*See Descriptive Notice*)

Howards & Sons, City Mills, Stratford, Essex.—Photographic Chemicals; Ammonium Bromide Ammonium Iodide; Potassium Bromide; Potassium Iodide; Sodium Bromide.

(*See Descriptive Notice.*)

Goodall (Charles) & Son, Camden Works, Great College Street, Camden Town, London. City Warehouse: 17, St. Bride Street, Ludgate Circus, London. Christmas Cards; Playing Cards; Drawing Boards; Programmes; Menus; Writing Papers; Fancy Stationery.

The Collection exhibited comprises:—

PLAYING CARDS;
CHRISTMAS CARDS;
DRAWING BOARDS;
MOUNTING BOARDS;
CARD BOARDS;
IVORY AND MESSAGE CARDS;
CHROMO AND ENAMEL PAPERS;
BALL PROGRAMMES;
MENU CARDS;
WRITING PAPERS;
BASKERVILLE & OTHER STATIONERY IN SPECIAL BOXES.

The principal feature in the Collection is the selection of DESIGNS from the PLAYING CARDS made by the Firm, the variety extending to many hundreds, to which new patterns are being constantly added.

At the Paris Exhibition, 1878, Messrs. GOODALL *received the* GOLD MEDAL (Highest Award) *for the excellence of manufacture and artistic design of their Playing Cards.*

A very limited selection of CHRISTMAS CARDS is shown, but sufficient to indicate the variety manufactured.

The general manufactures of the Firm could not have been comprehensively exhibited in the Case now on view.

The selection, however, includes, in addition to what has been already referred to, the highest class WRITING PAPERS and ENVELOPES, as "*Baskerville*," "*Venetian*," and other well-known marks, the convenient and attractive method of boxing these goods being a speciality.

The Exhibitors are manufacturers of IVORY BOARDS for VISITING CARDS, and of all descriptions of MOUNTING and CARD BOARDS, as well as of MESSAGE and PRINTING CARDS of all kinds.

At the Paris Exhibition, 1878, *a* GOLD MEDAL *was awarded to the* FIRM *in respect of their* IVORY and MOUNTING BOARDS.

Messrs. GOODALL & SON have secured Prize Medals at all the principal International Exhibitions, including those of

London, 1862;
Paris, 1867;
Philadelphia, 1876;
Paris, 1878;
Sydney, 1879;
Melbourne, 1880;
Adelaide, 1881;
New Zealand, 1882.

At the Paris Exhibition, 1878, a SILVER MEDAL, in addition to the TWO GOLD MEDALS referred to above, was awarded to Messrs. GOODALL for their ENVELOPE-MAKING MACHINE.

At the Sydney Exhibition, FOUR FIRST-CLASS AWARDS *were received for* PLAYING CARDS, MENU and PROGRAMME CARDS, BASKERVILLE PAPER, and ENVELOPES, respectively. Similar honours fell to the Exhibitors at *Melbourne*, and to these the Commissioners of the Exhibition added the SPECIAL AWARD of a SILVER MEDAL.

At the Adelaide Exhibition, the Firm obtained the Award of FIRST ORDER OF MERIT, with GOLD MEDAL.

The most recent honour obtained by Messrs. GOODALL & SON was a GOLD MEDAL at the *New Zealand Exhibition*.

Special attention is directed to the Trade Mark used by the Exhibitors.

Hockin, Wilson & Co., 38, Duke Street, Manchester Square, London. —"Ruby" Marking Ink.

"Ruby" Marking Ink can be applied with a steel pen, one of the difficulties attending the marking of linen being obviated by its use. It is perfectly transparent, without sediment, flows from the pen with the greatest freedom, and upon the application of heat becomes indelibly black.

At the Melbourne International Exhibition a Prize Medal was obtained by the Firm, who, besides the Marking Ink, also manufacture Seidlitz Powders, Toilet articles, and other chemicals as now shown.

(*See also Sections C., E. & F.*)

Howards & Sons, City Mills, Stratford, Essex.—Photographic Chemicals; Ammonium Bromide; Ammonium Iodide; Potassium Bromide; Potassium Iodide; Sodium Bromide.

THE EXHIBITORS ARE MANUFACTURERS OF QUININE SALTS, PHARMACEUTICAL, PHOTOGRAPHIC AND OTHER CHEMICALS; AND ARE CONTRACTORS FOR THE SUPPLY OF CHEMICALS TO H.M. NAVY, TO THE CROWN AGENTS FOR THE COLONIES, AND TO THE AGENT-GENERAL FOR THE CAPE OF GOOD HOPE. They are also MANUFACTURERS OF CINCHONA ALKALOIDS FOR THE INDIAN GOVERNMENT.

The Firm was established in 1798.

The Highest Honours have been obtained at the following International Exhibitions:—London, 1851; Paris, 1855; London, 1862; Paris, 1867 (Gold Medal).

Price lists are furnished on application.

(*See also Sections C., F. & H.*)

Johnston (W. & A. K.), Edina Works, Easter Road, Edinburgh.—Maps; Atlases; Globes; Wall Illustrations, &c.

Lawrence Brothers, 48, Farringdon Street, London; and 39, Dey Street, New York, U.S.A. (LAWRENCE & BAXTER).—Stationery Articles and Fancy Goods.

Loth (Dr. John Thomas), 8, Atholl Place, Edinburgh.—Educational and other Books:—

ALBUM der schönsten Blüthen deutscher Dichtkunst.

GRAMMATISHE Hülfsblätter (Tabular views of the German Grammar).

DAMEN BRIEFSTELLER (Ladies' German Letter Writer).

PRACTISHE SPRACHDENKLEHNE.

CONVERSATIONAL GUIDE in English, French, German, and Italian.

CONVERSATIONAL GUIDE en francais, anglais, italien et espagnol.

GUIDE TO PARIS, with map.

GUIDE to Belgium, Holland, and the Rhine.

THE CHRISTIAN'S DIARY.

THE ANCIENT AND ACCEPTED SCOTTISH RITE, *Illustrated. Quarto.* 33 Illustrations.

FRENCH for Children.

Mitchell (William), Washington Works, Cumberland Street, Birmingham; and 44, Cannon Street, London. —Steel Pens and Holders.

This Exhibit consists of:—

Steel Pens, suited for Ordinary Writing; Gilt and Fancy Pens;

Lithographic Pens, and Pens for Manifold Writing;

Selected Series of Pens, with Bright Embossed Letters, containing Pens suited to every hand. Each letter denotes a distinct adaptation.

Special attention is directed to the "J," "G," "N," and "S" Pens.

The Letter Pens are invariably put up in boxes bearing the Exhibitor's Trade Mark, an embossed label of the Arms of the City of London, as shown above.

The Firm of William Mitchell, as an originator in the Pen trade, holds a position at once unique and of world-wide celebrity.

"Pictorial World" (PROPRIETORS OF THE), 149, Strand, London.—Copies of the "Pictorial World"; Original Sketches.

Spalding & Hodge, 34, Cannon Street, City, London. — Hand-Made Papers; Machine-Made Papers.

This collection includes :—

WHITE AND TONED PRINTING AND PLATE PAPERS ;

FINE WHITE PRINTING & COLOURED COVER PAPERS, as manufactured for the principal London Illustrated Newspapers and Monthly Journals, for Book Publishers, Printers, &c.;

MACHINE-MADE WRITING PAPERS of various descriptions ;

FINEST QUALITY HAND-MADE WRITING PAPER, with "Spalding" Watermark, as supplied to Her Majesty's Stationery Office; and to the trade for Account Books, Bank Ledgers, &c. ;

LOAN AND BOND HAND-MADE PAPERS, including :—

BANK NOTE PAPERS ;

BILLS OF EXCHANGE FORMS, AND CHEQUE FORMS, with security against fraud (special Watermarks, and name in every sheet), manufactured by Spalding's improved process for watermarking paper.

The Mills belonging to the Firm are:—

Horton Kirby Paper Works, South Darenth, Kent.

Rush Hand-Made Mills, Northampton.

At the former are produced the Machine-Made papers above referred to ; the Hand-Made papers being supplied from the latter.

The Firm was established in 1790.

Samples and Prices may be obtained upon application to Messrs. DUNCAN BROS., Merchants, the sole agents for the Firm at Calcutta.

Sotheran (H.) & Co., 36, Piccadilly, London (Agents: Eyre and Spottiswoode, London).—Fine Art Publications ; Bookbinding.

Stephens (Henry Charles), Aldersgate Street, London.—Writing and Copying Inks ; "Aeilyton" Inks ; Marking Ink for Linen ; Ink Powders; Sealing Wax, Quills, Steel Pens, Rulers, Inkstands, Gum Mucilage, &c.

This Collection includes the Higher Qualities of Writing and Copying Inks, each of which possesses some special character adapted to the many different requirements of Correspondence and the Counting House.

"Aeilyton" (always capable of being loosened) is a term employed by the Exhibitor to indicate a New Discovery made by him in regard to Ink, and which he declares will prove of great importance to the Commercial world.

The Très-Noir and the Stylographic Writing and Copying Inks are new introductions by Mr. Stephens, and are remarkable for properties hitherto unattainable in the matter of colour, fluidity, smoothness of delivery, and absolute non-corrosion of steel pens.

Prize Medals were received by Mr. Stephens at Paris, 1867 ; Havre, 1868 ; Amsterdam, 1869 ; Lyons, 1872 ; Vienna, 1873 ; Philadelphia, 1876 ; and Paris 1878. Two First Prizes were received by him at the recent Sydney Exhibition, four at Melbourne, the Gold Medal at Adelaide, and the Gold Medal at Christchurch (New Zealand).

S (*See also Section F.*)

Trubner & Co., 57 and 59, Ludgate Hill, London.—Works relating to India.

(*See Descriptive Notice.*)

Tuck (Raphael) & Sons, 72 and 73, Coleman Street, City, London.—Oleographs, Chromos, Christmas and New Year Cards, Birthday, Easter, Text, and Wedding Cards.

(*See Descriptive Notice.*)

Tuck (Raphael) & Sons, 72 and 73, Coleman Street, City, London.—Oleographs, Chromos, Christmas and New Year Cards, Birthday, Easter, Text, and Wedding Cards.

The various Productions and Publications of this Firm are all of a nature to suit alike artistic and popular tastes. They are specially adapted for the Indian and Colonial Markets.

Merchants and Shippers are invited to give these goods a trial. They are well known and have an extensive sale in the Home Markets.

Illustrated Catalogues are supplied post free.

(*See also Section D.*)

Trubner & Co., 57 and 59, Ludgate Hill, London.—Works relating to India.

Speaking of Trubner's Oriental Series, the *Times* says:—

"A knowledge of the commonplace, at least, of Oriental literature, philosophy, and religion is as necessary to the general reader of the present day as an acquaintance with the Latin and Greek classics was a generation or so ago. Immense strides have been made within the present century in these branches of learning; Sanskrit has been brought within the range of accurate philology, and its invaluable ancient literature thoroughly investigated; the language and sacred books of the Zoroastrians have been laid bare; Egyptian, Assyrian, and other records of the remote past have been deciphered, and a group of scholars speak of still more recondite Accadian and Hittite monuments; but the results of all the scholarship that has been devoted to these subjects have been almost inaccessible to the public because they were contained for the most part in learned or expensive works, or scattered throughout the numbers of scientific periodicals. Messrs TRUBNER & Co., in a spirit of enterprise which does them infinite credit, have determined to supply the constantly-increasing want, and to give in a popular, or, at least, a comprehensive form, all this mass of knowledge to the world."

Waterlow & Sons, Limited, 25, 26 and 27, Great Winchester Street, London. — Stationery; Envelopes; Account Books.

The exhibit consists of:—

STATIONERY IN ALL ITS BRANCHES;
ENVELOPES;
ACCOUNT BOOKS;
RAILWAY TICKETS;
MORSE AND WHEATSTONE TELEGRAPH PAPERS;
DIE SINKING AND SEAL ENGRAVING;
SEALING WAX, PREPARED ESPECIALLY FOR HOT CLIMATES.

It may be mentioned that this Company has at the present time the contract for the whole of the Sealing Wax for the General Post Office of Great Britain, as well as that for the supply of Wheatstone and Morse Telegraph papers.

WATERLOW AND SONS, LIMITED, hold Contracts with Her Majesty's Stationery Office for binding, and also for all stationers' requisites to the Colonial Office, besides many of the principal Railway Companies.

Their Establishments and Manufactories are as follows:—

95 and 96, LONDON WALL, General Stationery, Envelopes, and Account Books; FINSBURY WORKS, Railway, Commercial, and General Printing and Country Departments, Machine Ruling, Account Book Manufactory, Lithography; 25, 26 and 27, GREAT WINCHESTER STREET, General Offices and Shipping Department, Bank Note, Postage Stamp and Commercial Engraving, Steel and Copper Plate Printing; APPOLD STREET, FINSBURY, Envelope Manufactory, Multiplex Copying Apparatus Manufactory, &c.; HILL STREET, FINSBURY, Card Board and Railway Ticket Manufactory, Account Book Binding for Her Majesty's Government; 23, PHIPPS STREET, and 3, CROSS STREET, City, Depots for Waste Paper, Paper Making Materials, Export Baling and Packing; 49 and 50, PARLIAMENT STREET, Law Stationery and Parliamentary Printing;

PARIS, 27, Rue du 4 Septembre.

The Exhibitors have been awarded Medals at the following International Exhibitions:—

PARIS, 1855 (Two).
LONDON, 1862.
PARIS, 1878.
SYDNEY, 1879.

(*See also Sections A. and F.*)

"Willesden" Patent Waterproof Paper and Canvas Co., Limited. London: 34, Cannon Street, City.—Waterproof Paper Houses; Canvas Tents.

This exhibit of Waterproof Paper Roofing and Rot-proof Canvas includes:—

Structure of "WILLESDEN" ROOFING, showing method of laying "WILLESDEN" PAPER, without boards, directly on the rafters or framing, and fixing with outside batten;

"WILLESDEN" PAPER TROUGH or TANK, made of "Willesden" roofing, holding 100 gallons of water;

"WILLESDEN" PAPER LAUNDER for Mining Districts, &c.;

"WILLESDEN" PAPER PIPING;

"WILLESDEN" ROT-PROOF CANVAS DOUBLE TENT;

"WILLESDEN" 4-ply ROOFING in rolls, 54 inches wide, for outside work in place of Galvanised Iron or Felt. Buildings constructed of this paper have been standing unharmed, exposed to all weathers during the last seven years. It is invaluable to Contractors, Farmers, Miners, and others.

"WILLESDEN" 2-ply PAPER for under-lining slates, tiles, &c.

"WILLESDEN" 1-ply PAPER for lining damp walls, cases, packing, covering cinchona trees, and many other purposes.

"WILLESDEN" ROT-PROOF CANVAS in rolls, water repellent, insect proof, inodorous, of especial value in tropical climates, and possessing greater strength and five times more durability than untreated canvas.

"WILLESDEN" ROT-PROOF SCRYM for blinds, shading, protection against mosquitoes, &c., in rolls about 56 inches wide.

The Sole Agents for the Company are Messrs. SPALDING & HODGE, of 34, Cannon Street, London, who are represented at Calcutta by Messrs. DUNCAN BROS., Merchants.

Ajello (Giuliano), 104, Park Street, Camden Town, London.—Vertical Pianos; Upright Grand Pianos.

Augener & Co., 86, Newgate Street, London.—Classical, Educational, and other Music.

Bauer (Gilbert L.) & Co., King's Road, St. Pancras, London.—Grand Concert Harmonium.

Besson (F.) & Co., 198, Euston Road, London.—Musical Instruments.

Boosey & Co., 295, Regent Street, London.—Military Band Instruments.

Messrs. Boosey & Co.'s manufactory is divided into four departments: 1. Brass Instruments; 2. Clarionets and Bassoons; 3. Flutes; and 4. Drums. The Instruments are of three qualities, designated "A," "B," and "C." The two latter are strongly made and well in tune, but not upon such expensive models, nor as highly finished as the "A" quality. The Brass Instruments with Compensating Pistons—protected by Letters Patent—have obtained a great reputation in the Army, as well as the Clarionets and Flutes made of the new material called Ebonite, which cannot split, and is not affected by climate.

A full description of Messrs. Boosey & Co.'s Instruments will be found in their Illustrated Catalogue.

Brinsmead (John) & Sons, 18, Wigmore Street, and Brinsmead Works, Grafton Street, London.—Horizontal Grand Pianoforte, specially constructed to withstand the effects of extreme climates. Upright Iron Grand Pianoforte in solid case, specially manufactured for India. Upright Iron Grand Pianoforte with patent perfect check repeater action sostenente sounding board. Upright Iron Grand with patent tuning apparatus.

Challen & Son, 46, Oxford Street and 36, Cardington Street, London.—Pianofortes.

Hössli (J. Bornard) (per EYRE & SPOTTISWOODE, London).—Musical Boxes.

The Collection exhibited affords but a faint idea of what has been achieved by Mr. Hossli in the manufacture of Musical Boxes, some of those produced by him being capable of effects such as might be expected from a band of fifty performers.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents

Kirkman & Son, 3, Soho Square, London.—Grand and Upright Pianofortes, with Steel and Iron Frames.

Smith (P. J.) & Sons, 3 and 4, Princes Street, Oxford Street, London; & Queen's Road, Bristol.—Pianofortes with "Patent Iron-Strutted Frames."

The Pianos manufactured by this Firm are both Grands and Uprights. Those exhibited are three Uprights; one a specimen of an inexpensive class in solid mahogany, upon which either more or less decorative work could be placed; the second a model of Early English design; the third an Upright Grand, in specially designed case, and every possible modern improvement.

All these Instruments possess the special advantage of being constructed with complete Double Frames (as is usual in Grands) of Wood and Iron; they are, in fact, the only Upright Piano with such construction.

These advantages have been thoroughly proved in most extreme climates—hot and cold—and the Pianos are noted for standing remarkably in tune.

Each Piano exhibited possesses check action, Celeste pedal, &c.

The title of these Pianofortes is registered by the Patentees.

The Trade Mark of the Firm is an Eagle, with wings outstretched.

No infringement of the Title or Trade Mark will be permitted.

The Gold Medal at the New Zealand International Exhibition was awarded in respect of the Iron-Strutted Pianos.

Avery (W. & T.), London and Birmingham.—Scales and Balances for analysis, assay, and other scientific purposes.

(*See other Entries in this Section, also Sections C., D., G. and I.*)

Dale & Co., 4, Little Britain, London.—Scientific and Electrical Instruments.

Eyre & Spottiswoode, London.—Mathematical Instruments; Artists' Material.

These manufactures are largely supplied to the Public Schools of England, and to Scientific Colleges.

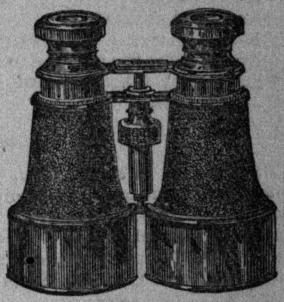
Levi (Joseph) & Co., 40, Castle Street, Holborn, London.—Sextants; Optical Goods; Photographs.

The Sextants exhibited are such as the Exhibitors supply to Trinity House and the largest shipowners in England. The Double Telescope shown was that actually used by H.R.H. The Prince of Wales during his stay in India.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Société des Lunetiers, 56, Hatton Garden, London (Agents for the Exhibition: Balmer, Lawrie and Co., 5, Clive Street, Calcutta.—Instruments; Optical Goods.

Steward (J. H.), 406, Strand; 66, Strand; 456, West Strand; and 54, Cornhill, London.—Optical Instruments; Dissolving View Apparatus.



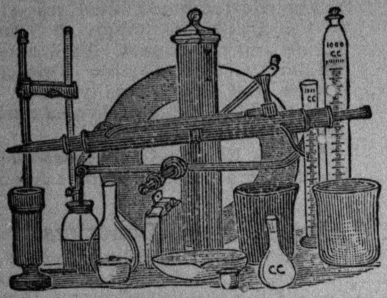
Instruments and Apparatus as exhibited are supplied to the following Governments:—

BRITISH,	INDIAN,
AMERICAN,	RUSSIAN,
CHILIAN,	ARGENTINE,
CHINESE,	TURKISH,
ITALIAN,	BELGIAN;

Also to the NATIONAL RIFLE ASSOCIATIONS.

Illustrated Catalogues are forwarded gratis and post free to all parts upon application.

Townson & Mercer, 89, Bishopsgate Street Within, London. — Chemical and Scientific Instruments.



The instruments manufactured by the Exhibitors are employed in the laboratories of the following Government Departments :—

INLAND REVENUE,
CUSTOMS,
ROYAL MINT,
ROYAL ARSENAL,
ROYAL ARTILLERY STUDIES,
ROYAL MILITARY ACADEMY,
DIRECTOR-GENERAL OF STOR FOR INDIA,
PRIVY COUNCIL (BOARD OF EDUCATION);

The Universities of:—
OXFORD,
CAMBRIDGE,
LONDON,
ABERDEEN,
TORONTO,
TOKIO DAIGAKU (JAPAN);

The undermentioned Hospitals :—
ROYAL VICTORIA HOSPITAL (Netley),
GUYS,
LONDON,
ST. GEORGE'S,
UNIVERSITY COLLEGE;
and the SCHOOL OF MILITARY ENGINEERING, CHATHAM, &c.

The Firm was established in the year 1798.

A complete Illustrated Catalogue of its Manufactures is obtainable at the above address, price 2s. 6d. It includes a list of Graduated and Scientific Instruments, Pure Chemicals, &c., Bohemian Glass, German Glass, and Berlin Porcelain, for the use of Lecturers, Manufacturers, Assayers, and others.

Caslon (H. W.) & Co., Type Founders, London. Specimens of Type and Printing Materials ; Specimen Books of Types ; Specimen Sheets of Type. Agents; John Dickinson and Co., Calcutta.

Chisholm (John), London, Publishers of Catholic Prayer Books and Works.—Books.

Dickinson (John) and Co., 7, New China Bazaar Street, Calcutta, and London.—Envelopes and Cards.

(*See also section F.*)

Esdaile (J.) and Co., Water Lane London.—Upright General Pianoforters, (Exhibited in the New South Wales Court.) Represented by S. T. Levy.

Jeffries and Co., Wood Street, Woolwich.—Racquet Bats; Cricket and Lawn Tennis Bats, and the Indestructible Cat-gut Seam Cricket Ball.

Lazarus (N.) London and Calcutta.—Appliances for the manufacture of patented Achromatic and Eureka Lenses for Spectacles and Eye-glasses, specially adapted for the correction of imperfect vision.

Rock Bros, Limited, 11, Wallbrook, London.—Account books ; Copying, Pocket and Memorandum Books ; Blotting Pads, Wallets, Letter Cases ; Inkstands ; etc. Agents : John Dickinson and Co. Calcutta.

Solomons & Co., Hatton Garden, London.—Optical Goods ; Scientific and Mathematical Instruments and Appliances.

Thomson (T. E.) and Co., 9, Esplanade Row, Calcutta.- Measuring Tapes; Foot Rules ; Land Chains; Scales ; Squares, etc.

Section C.

HEALTH.

(CLASSES 16 to 22.)

Cheavin (George), Wide Bargate Filter Works, Boston (Agents: J. S. Elmore & Co., Pollock Street, Calcutta).—Filters.

Doulton & Co., Lambeth, London (Agents at the Exhibition: Sinclair, Hamilton & Co., 35, Clive Street, Calcutta).—Sanitary Ware, and Appliances, including Water Closets, Urinals, for English and Indian use; Slop Sinks, Lavatories, Sewer Gas Interceptors, Yard Gullies, Air Bricks, Drain Pipes, Invert Blocks, Water Valves of every description, Water Waste preventing Cisterns and Valves; Automatic Flush Tanks, Automatic Flushing Syphons; Grease Interceptors.

At all the principal International Exhibitions, including those of London, Vienna, Philadelphia, Paris, Sydney, Melbourne; and at Amsterdam, "by acclamation," the Highest Awards have been obtained by Messrs. Doulton and Co. At Paris they received the Grand Prix and Legion of Honour.

(See also Sections A., D., F., G. and I.)

Gibbs (Robert Renton), St. James Works, Mill Street, Liverpool (Agents at Exhibition: Maynard, Harris and Co.).—Prisms for Cooling and Cleansing Air.

Glenboig Union Fire Clay Company, Limited, 4, West Regent Street, Glasgow.—Glazed Sewage Pipes.

(See also Section D.)

Jennings (George), Palace Wharf, Stangate, Lambeth, London.—Sanitary Appliances; Lavatory, Water Closet, and Bathroom Fittings.

Maignen (P. A.), 22 and 23, Great Tower Street, London.—Filters; "Filtre Rapide," for the Purification and Aëration of Water, and for the clarification of other Liquids.

Silicated Carbon Filter Co., London.—Filters for Domestic and Manufacturing Purposes.

Slack & Brownlow, Canning Works, Upper Medlock Street, Manchester.—Filters for domestic and manufacturing purposes.

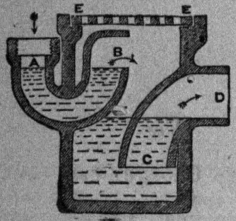
Stiff (James) & Sons, London Pottery, Lambeth, London.—Sinks, Sewer-Air Traps, Closet Pans, Drain Pipes, Invert Blocks for Street Sewers, Gullies, and every description of Sanitary Stoneware, highly glazed and vitrified; Specialities:—"Weaver's" Ventilating Sewer-Air Trap, Stiff's "Interceptor" Sewer-Air Trap, The "Weatherly" Sink and Waste-water Trap.

(See Descriptive Notice.)

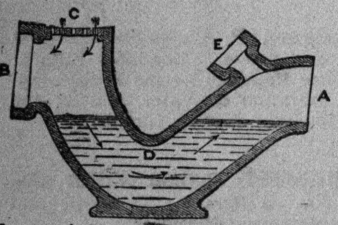
Tylor (J.) & Sons, 2, Newgate Street, London.—Sanitary Appliances; Water Closets; Urinals; Lavatories; Baths.

(See also Section G.)

Stiff (James) & Sons, London Pottery, Lambeth, London.—Sinks, Sewer-Air Traps, Closet Pans, Drain Pipes, Invert Blocks for Street Sewers, Gullies, and every description of Sanitary Stoneware, highly glazed and vitrified; Specialities:—"Weaver's" Ventilating Sewer-Air Trap, Stiff's "Interceptor" Sewer-Air Trap, The "Weatherly" Sink and Waste-water Trap.



'WEATHERLY" SINK TRAP.



WEAVER'S VENTILATING SEWER-AIR TRAP.

All the Goods shown in this Section are largely used by British and Foreign Sanitary Engineers, Boards of Health, &c.

(See also Sections D. and G.)

Arnold & Sons, 35 and 36, West Smithfield, London. — Surgical Instruments and Appliances; Veterinary Instruments.

Battley & Watt, 32, Lower Whitecross Street, Cripplegate, London.—Pharmaceutical Preparations.

Avery (W. & T.), London and Birmingham. — Weighing Machines and Scales for Hospital Use.

Machines for Weighing Patients and printing their weight are supplied by the Exhibitors with (Chameroy's) Patent Self-Registering Steelyard.

(See also Sections B., D., G. and I.)

Becker (F. E.) & Co., 34, Maiden Lane, Covent Garden, London.—Chemical Apparatus; Chemicals.

Calvert (F. C.) & Co., Manchester.—Carbolic, or Phenol, and its preparations for Medicinal, Surgical, Sanitary, and Toilet uses; Carbolic and other Soaps.

Evans, Lescher & Webb, 60, Bartholomew Close, London.—Drugs; Chemicals; Pharmaceutical Preparations; Druggists' Sundries.

Evans & Wormull, 31, Stamford Street, London. — Surgical Instruments.

(See also Section D.)

Ferris, Boorne, Townsend & Boucher, 4 and 5, Union Street, Bristol. — Drugs; Chemical and Pharmaceutical Preparations; New Remedies; Tasteless Pearl-Coated Pills; Pure Thymol Soap; Surgical Instruments; Hospital Appliances; Microscopes; Scientific Instruments.

(See Descriptive Notice.)

Burroughs, Wellcome & Co., Snow Hill Buildings, Holborn, London, E. C.
New Improvements in Pharmacy.

HAZELINE.—Hazeline is distilled from the fresh green inner bark of Hamamelis Virginica, the American Witch Hazel. It represents, in a concentrated form, all the active principles of the plant. It is a clear, colourless fluid, having a fragrant, agreeable odour, and slightly astringent taste. Does not stain linen, and is entirely free from toxic or irritating properties. It is now very largely prescribed by the profession in the treatment of internal and external hæomrrhoids, as also in the treatment of catarrhal affections. In all cases it seems to give very speedy relief. It is also being largely employed in the treatment of ulcerated legs, and generally for allaying inflammation upon irritated surfaces of the mucous membrane.

THE BURROUGHS BEEF AND IRON WINE—A highly concentrated strength-giving tonic food, prepared from the finest beef, with Citrate of Iron, in a pure medicinal wine. Each 1 lb. represents the value of 2 lbs. of fresh beef. This refreshing, nourishing, and invigorating tonic food and stimulant is often prescribed with much benefit in cases where neither Iron, Wine, nor Beef can be tolerated separately or combined. It has been found especially useful as a restorative food for convalescents.

THE BURROUGHS BEEF AND IRON WINE WITH QUININE.—Each half fluid ounce or table-spoonful contains the nutritive value of one ounce of good fresh Beef, one grain of Citrate of Iron, and half a grain of Sulphate of Quinine in a pure medicinal wine. This preparation combines in an agreeable form all the nutritive and strengthening properties of the BURROUGHS BEEF AND IRON WINE, with the well-known qualities of Quinine.

THE BURROUGHS AMMONIA INHALER.—This inhaler produces perfectly neutral fumes of Chloride of Ammonium. The *Medical Press and Circular* reports:—THE BURROUGHS INHALER is an ingenious and convenient device for inhaling Chloride of Ammonium fumes; by its use the Chloride of Ammonium is brought in more intimate contact with the mucous surfaces of the passages of the nose and throat, than by any other form of Inhaler. This instrument is now very largely employed by leading members of the profession in the treatment of throat and ear affections.'

THE BURROUGHS ELIXOIDS of Calisaya Bark; of Bromide of Potassium; of Pepsin; of Bromide of Sodium; of Ferro—Phosphated Calisaya Bark; of Iodide Potassium; of Iodide Potassium and Bin-Iodide Mercury; of Phosphorus; of Phosphates of Iron, Quinine and Strychnia; Quinine; and Valerianate Ammonia. These Elixoids present the most palatable and agreeable form for administering drugs in a liquid form.

THE BURROUGHS MEDICAL POCKET CASES.—These are the most compact and convenient cases that have ever been offered to the profession. They are constructed upon an entirely new principle.

BISHOP'S GRANULAR EFFERVESCENT SALTS.—In this form, Citrate of caffeine, one grain in each teaspoonful: also other salts, composition stated on each label. Mr. Bishop, as is well-known, was the inventor and original maker of these beautiful preparations which have done as much for the credit of English pharmacy as any other single invention in pharmacy. The Citrate of Caffeine is a recent introduction, and in this form for the treatment of headache it is rendered more agreeable and more prompt in action. The reliability of Mr. Bishop's articles is well known.

THE ENTERPRISE TINCTURE PRESS.—A new TINCTURE PRESS exhibited in operation. Especially suited for coarse and fibrous drugs, constructed upon an entirely new principle. An AUGUR-SHAPED SCREW operates in such a manner as to force a large bulk of the wet mass as fed into the press into smaller and still smaller space, until the refuse powder is rendered perfectly dry when delivered from the point of exit, while the liquid flows through a strainer underneath into a receptacle for it. The force is very great upon the thin and continuous layers operated upon. Will save about 10 per cent. more of tincture than any other press adapted for laboratory operations. Requires some practical experience to properly regulate. (Messrs, Packham & Co., Mineral Water Makers, of Croydon, inform us that they have saved upwards of £20 during the past three months by using this press instead of any other found in the market.)

THE ENTERPRISE DRUG MILL.—A new Drug Mill exhibited in operation an

Burroughs, Wellcome & Co., Snow Hill Buildings, Holborn, London, E. C.

New Improvements in Pharmacy.—*(Continued.)*

constructed upon an important principle—the cutters easily removed for cleaning. It may be regulated to any degree of fineness or coarseness by simply turning a thumbscrew. Is well adapted to reduce to powder almost any pulverisable substance. Professor Maisch, one of the highest American authorities on Pharmacy, says, that it is the best drug mill that has yet been devised.

FELLOWS' COMPOUND SYRUP OF THE HYPOPHOSPHITES of Iron, Quinine, Strychnia, Lime, Potassium, and Manganese, (1-64th of a grain of Strychnia in each fluid drachm). This Syrup combines in one preparation (with the addition of Manganese), the medicinal value of Easton's Syrup and Parrish's Chemical Food. It possesses the advantages over most other preparations of this character, that on account of its slightly alkaline reaction. the Hypophosphites are rendered available to many delicate patients who cannot tolerate the acid preparation.

KEPLER EXTRACT OF MALT.—A pure EXTRACT OF MALT prepared from the finest selected Barley Malt, securing all the valuable, nutritive, and digestive properties. The "LANCET" *says of the* KEPLER EXTRACT OF MALT: 'The best known, and in this country the largest used EXTRACT OF MALT. It is as distinct an advance in therapeutics as was the introduction of COD LIVER OIL. It is one of our best remedies for a tonic dyspepsia, and is undoubtedly useful in consumption and other wasting diseases.'

KEPLER EXTRACT OF MALT.—COMBINATIONS: with Beef and Iron; with Cod Liver Oil and Iodide of Iron; with Cod Liver Oil and Phosphorus; with Chocolate; with Ferri Iodide with Ferri Pyrophos; with Ferri et Quinia Cit.; with Ferri, Quinia et Strychnia; with Hops; with Hypophosphites; with Pancreatin; with Pepsin; with Pepsin and Pancreatin; with Phosphates (Chemical Food); with Phosphorus; with Peptones: and Extract of Malt; from Barley, Wheat and Oats. The KEPLER EXTRACT OF MALT from pure Barley is greatly superior to any malt prepared from other cereals.

KEPLER COD LIVER OIL. WITH EXTRACT OF MALT.—This is an emulsified combination of the finest NORWEGIAN COD LIVER OIL with 50 per cent. of EXTRACT OF MALT (KEPLER). This is readily assimilated and agreeable to the most fastidious taste. It is a well-known fact that in weak digestion a fat already emulsified can be readily assimilated, when the system is unable to deal with the simple fat. THE "BRITISH MEDICAL JOURNAL" says of it: "The taste of the oil is agreeably disguised, its nutritive powers are greatly increased, and it is rendered easy of digestion"

THE KEPLER PURE & PALATABLE COD LIVER OIL.—Being the Virgin drippings from the choicest selections of Livers from freshly caught healthly Norwegian Cod of the true species *Gadus Morrhuæ*.

Prepared upon the Coast of Norway with the most scrupulous care by a skilful chemist who has made it a life study to produce from fresh Cod Livers a prefectly pure bland and tasteless Oil, at the same time preserving its full nutritive and therapeutic qualities. This he has now effected by a new and original old process.

The flavour is so extremely delicate that it may be easily administered to patients who refuse to take ordinary COD LIVER OIL

Dose—Adults: half to one tablespoonful alone or in Lime-water, Milk, Coffee, or any agreeable Liquid

The Kepler Malt and Oil Emulsion is more easily digested and will be found preferable for patients who object to the Oil pure and simple.

LAWTON'S ABSORBENT COTTON.—This is the finest selected fabric of the American Sea Island Cotton, from which all resin and oil has been extracted. It is unquestionably the finest product of the kind that has ever been offered to the profession as shown by its general adoption by the leading surgeons, The *Lancet* says, 'Lawton's Cotton is beautifully soft, really absorbent, and quite free from chemicals."

LUNDBORG'S PERFUMES.—Tally-ho, Fascination, Edenia, and Marechal Niel Rose. "THE PRINCE OF WALES is well-known as a connoisseur in perfumes, and has taken a great liking to EDENIA, which is the *specialité* of a well-known American firm. The *jeunesse dorée*—or shall we say

Burroughs, Wellcome & Co. Snow Hill Buildings, Holborn, London, E. C.

New Improvements in Pharmacy.—*(Continued.)*

the 'YOUNG ENGLAND PARTY!'—will no doubt follow his example, and Edenia will be all the rage this season."—*Lady's Pictorial.*

THE McK. AND R. CAPSULED PILLS.—A new and improved form for easily administering nauseous drugs to delicate patients, and also securing portability and perfect preservation of Drugs in any climate. THE LANCET SAYS: "The one form of pill that is a real advance on anything previously manufactured. They are evidently a most decided improvement over the ordinary round pills, for patients who reject round pills will swallow these with great facility. They are very soluble, requiring only half a minute to dissolve the covering when one is placed in the mouth: the mass is in a very soft condition, as glycerine is the excipient employed for the QUININE and other drugs of a similar character. The colour of every drug is distinctly shown through the perfectly transparent gelatine while the covering, not being porous, completely seals all changeable substances from the oxidising influence of the atmosphere.

MURRAY AND LANMAN'S FLORIDA WATER.—An efficient hygienic toilet water especially adapted for the sick room, refreshing and invigorating when used in the bath. The LANCET reports: "This is an excellent preparation. It is a simple floral extract, and has a most delicate and refreshing perfume. It has been in use for over seventy years in America, and in tropical climates is largely employed as an addition to the bath and for sprinkling about the room to cool the heated atmosphere. It will be found valuable in the sick chamber, and may be used with advantage in the form of a "spray."

THE REMINGTON PHARMACEUTICAL STILL.—The CONDENSER is so constructed as to greatly increase its power of condensation, seven parallel straight tubes, each 11 inches in length, surrounded by a copper case which permits of the circulation of cold water between, the combined length is thus over 6 feet, and represents over 100 square inches of condensing surface. These straight tubes are easily cleansed. The Still is in every respect simple, and convenient for ready adjustment—it is well adapted for general laboratory operations.

THE WYETH SOLUBLE COMPESSED HYPODERMIC TABLETS.—Each little tablet contains as a vehicle a ¼ grain of SULPHATE OF SODIUM, intimately mixed with which is a proper dose of medications such as Morphia, Atropia, Strychnia, and other drugs usually employed for hypodermic medication. The advantages of these tablets for hypodermic medication are: absolute accuracy of dose, ready and entire solubility, perfect preservation of the drug, permanence, and convenience in use.

THE WYETH COMPRESSED TABLETS OF CHLORATE OF POTASH and other drugs suited for throat affections. CHLORATE OF POTASH WITH BORAX; CHLORATE OF POTASH WITH CHLORIDE OF AMMONIUM; CHLORIDE OF AMMONIUM WITH BORAX, &c. The pure drug, without any addition, is compressed in very small lenticular discs, which are easily retained in the mouth while singing or speaking. The great advantage of these Tablets over the ordinary lozenges is, that they are free from the irritating saccharine matter with which ordinary lozenges are diluted. They are now almost universally prescribed by the profession in preference to the usual gargles, for when allowed to dissolve in the mouth the saliva becomes charged with the salt carrying it directly to the affected parts, thus really securing all the beneficial effects of a continuous gargle without the injurious exertion which was required by the old method.

THE WYETH COMPRESSED TABLETS OF SODA MINT and other neutralising agents; BICARBONATE OF POTASH, BICARBONATE OF SODA. The portability and general convenience as well as the agreeable form of administering the drugs have caused these tablets to become the most popular form for prescribing the alkaline salts in cases of acidity of the stomach, sick headache, heartburn, &c.

THE WYETH DIALYSED IRON.—Each bottle accompanied by a dropper. A pure neutral solution of per-oxide of Iron in a collo idfrom: each fluid ounce contains 27·68 grains. The value of DYALYSED IRON depends upon the proper carrying out of the process of DIALYSATION and upon the product being perfectly.

Ferris, Eoorne, Townsend and Boucher, 4 and 5, Union Street, Bristol.— Drugs; Chemical and Pharmaceutical Preparations; New Remedies; Tasteless Pearl-coated Pills; Pure Thymol Soap; Surgical Instruments; Hospital Appliances; Microscopes; Scientific Instruments.

REGISTERED TRADE MARK.

Messrs. Ferris and Company, whose Firm was established in 1770, exhibit a complete collection of nearly all new Drugs, Pharmaceutical Preparations, and Surgical Instruments. The following are some of their specialities:—

Anodyne Amyl Colloid;
Chlorodyne Transparent;
Dialysed Iron;
Duroleum and Duroleum Preparations;
Emplast. Bellad. Fluid;
Ess. Copaibæ, Cubeb et Buchu;
Ext. Convallariæ Majalis Fluid;
Fluid Extracts of the United States Pharmacopœia;
Liq. Cinchonæ dulc;
Liq. Secale Ammon;
Nepenthe;
Norwegian Cod Liver Oil, and Cod Liver Oil Emulsions;
Ozonic Toilet Vinegar;
Syr. Hypophosph. Comp.;
Warburg's Tincture;
Wine of Beef and Iron;
Soluble Pearl-coated Pills:
Pure Thymol Soap;
The "Perfect" Clinical Thermometer.

Indents for Dispensaries, Hospitals, &c., should be addressed Ferris and Company, Bristol, England.

Fletcher, Fletcher and Stevenson, North London Chemical Works, Holloway, London.— Drugs and Chemicals.

Herrings & Co., 40, Aldersgate Street, London.— Pharmaceutical Preparations; Essential Oils.

Hockin, Wilson & Co., 38, Duke Street, Manchester Square, London.—Seidlitz Powder.
(*See Descriptive Notice.*)

Hewlett (Charles J.) & Co. 40, 41, and 42, Charlotte Street, Great Eastern Street, London.— Pharmaceutical Preparations; Drugs and Chemicals.

C. J. HEWLETT & SON TRADE MARK REGISTERED DECEMBER 1874

Established 1832.

Of the specimens exhibited by Messrs. C. J. Hewlett & Son, attention is particularly directed to the following:—

Fluid Extracts;
Liq. Ergotæ Purif.;
Ergotine;
Syr. Ferri Phosph. Co.;
Bark Preparations;
Chlorodyne;
Mist. Pepsinæ Co. c. Bismutho;
Liq. Santal flav. c. Buchu et Cubeba;
Quinine (Hewlett);
Ol Copaibæ Essent. Ang.;
Liq. Quiniæ Sulph.; Amorphous;
Ol Cubebæ Essent. Ang.;
Coated Pills;
Emulsio Ol Morrhuæ;
Potass. Iodid.;
Acid Carbolic; Pur. Crystals;
Tinctures, &c.

These and other Preparations may be obtained of the Exhibitors' Agents in Calcutta, or through any of the leading wholesale Druggists in India.

Howards & Sons, City Mills, Stratford, Essex.—Quinine; Cinchona Alkaloids and their Salts; Cinchona Barks; Pharmaceutical Chemicals.
(*See Descriptive Notice.*)

Jeyes' Sanitary Compounds Company, Limited, 43, Cannon Street, London (Agents for Bengal and Burmah: Messrs. Dyce, Nicol and Co., Calcutta).—Jeyes' "Perfect Purifier" Disinfectant and Cleanser; Disinfectant Powder; Disinfectant Soaps; Non-Poisonous Sheep Dip; Wood Preserver, &c.
(*See Descriptive Notice.*)

Jones (G. H.), 57, Great Russell Street, London.—Artificial Teeth; Dental Appliances.

Khoosh Tonic Bitters Company, Limited, 24, King William Street, London; and 12, Goree Piazzas, Liverpool.—Khoosh Tonic Bitters.

Hockin, Wilson & Co., 38, Duke Street, Manchester Square, London. —Seidlitz Powder.

The Seidlitz Powder as exhibited will keep in perfect condition for any length of time, provided the bottle containing it be always well corked. As all the ingredients are contained within a single bottle the difficulties of mixing and apportioning the doses which attend the use of other powders are obviated.

Every bottle of Seidlitz Powder sent out by the Exhibitors bears a square label, printed in blue, containing in the centre, within an oval, the Royal Arms of England, and a square label printed in black, in the centre of which, within a circle, is the trade mark of the Firm, the essential feature being the initial letters "H" and "W" in combination. The attention of the public is particularly directed to these labels as guarantees of the powder being genuine.

Messrs. Hockin, Wilson & Co. also exhibit "Ruby" Marking Ink, Toilet articles, and other Chemicals.

At the Sydney International Exhibition a First Award was received by the Firm in respect of Seidlitz Powders.

(See also Sections B., E. & F.)

Howards & Sons, City Mills, Stratford, Essex.—Quinine; Cinchona Alkaloids and their Salts; Cinchona Barks; Pharmaceutical Chemicals.

THE EXHIBITORS ARE MANUFACTURERS OF QUININE SALTS, PHARMACEUTICAL, PHOTOGRAPHIC, AND OTHER CHEMICALS, and are CONTRACTORS FOR THE SUPPLY OF CHEMICALS TO H.M. NAVY, THE CROWN AGENTS FOR THE COLONIES, AND TO THE AGENT-GENERAL FOR THE CAPE OF GOOD HOPE; also MANUFACTURERS OF CINCHONA ALKALOIDS FOR THE INDIAN GOVERNMENT.

The Firm was established in 1798.

Messrs. Howards & Sons have continuously given their attention to the manufacture of CINCHONA ALKALOIDS and their SALTS for a period of nearly sixty years, having commenced extracting Quinine from Cinchona Barks in the year 1824. They are the largest Firm of Quinine Manufacturers in the United Kingdom.

Recognising the greater therapeutic efficiency of QUININE over other Cinchona Alkaloids, Messrs. Howards & Sons have always endeavoured to supply a pure salt and not one admixed, through imperfect manufacture, with Cinchonidine or other Alkaloids. Wherever exhibited, the Quinine manufactured by Messrs. Howards & Sons has always obtained the highest honours.

THE CITRATE OF IRON AND QUININE, as manufactured by them, is REALLY of the strength required by the British Pharmacopœia.

The exhibit includes a collection of the chief types of CINCHONA BARKS ordinarily met with in commerce.

The MANUFACTURES for the INDIAN GOVERNMENT comprise the well-known CINCHONA FEBRIFUGE, COLOURED QUININE, and one-pound blocks of COMPRESSED QUININE. The difference between the space occupied by sixteen one-ounce phials of Quinine and this block is manifestly enormous.

In the Pharmaceutical Chemicals special attention is directed to the BENZOIC ACID, and BENZOATES from the natural gum, the BISMUTH preparations free from Arsenic and Silver, the CALOMEL, and other MERCURIALS, CAMPHOR, FLOWERS AND BLOCKS, of which the Exhibitors are the sole makers. These blocks offer numerous manifest advantages for shipping and dispensing purposes, as they occupy less space than the bells, and are always of a certain weight for their size. IODOFORM, the new antiseptic, now rising into high favour with the medical profession, is also shown; as well as POTASSIUM BROMIDE and IODIDE, the BICARBONATES OF POTASH AND SODA, and BROMIDE OF SODIUM.

The Exhibitors call attention to the fact that this exhibit is intended as a display of a really practical and commercial character, and therefore more likely to be of service to merchants and buyers than a mere exhibition of scientific curiosities.

Price lists are furnished on application.

The Highest Honours have been obtained by the Firm at the following International Exhibitions: — London, 1851; Paris, 1855; London, 1862; Paris, 1867 (Gold Medal).

(See also Sections B., F. & H.)

Jeyes' Sanitary Compounds Company, Limited, 43, Cannon Street, London (Agents for Bengal and Burmah: Messrs. Dyce, Nicol & Co., Calcutta). — Jeyes' "Perfect Purifier" Disinfectant and Cleanser; Disinfectant Powder; Disinfectant Soaps; Non-Poisonous Sheep Dip; Wood Preserver, &c.

Jeyes' "Perfect Purifier" is a Disinfectant Fluid in a concentrated form, which in use does not poison, stain or burn.

It is authorised by H.M. Board of Trade and is recommended and used by Government Establishments, the leading Corporations, Medical and Sanitary Authorities, Hospitals, Railways, Steam Navigation Companies, &c., in the United Kingdom and abroad.

Jeyes' "Perfect Purifier" prevents infection by destroying its cause, killing the very germs of disease. It removes instantly all noxious smells, not by temporarily disguising them (as is often the case) but by a chemical combination substituting instantaneously for a poisonous a pure and healthy atmosphere, and thoroughly eradicating the evil. It is an unfailing destroyer of insects and vermin, but is not dangerous to human or animal life. For cleansing, it is the best detergent known. As a curative for wounds, ulcers, &c., its healing effects are marvellous.

Jeyes' Sanitary Compounds have been awarded for their excellence eighteen Prize Medals and Certificates, amongst which are those of the Congress of the Sanitary Institute of Great Britain, Brighton, 1881 (the only Award); Melbourne International Exhibition, 1880-1 (highest Award); International Sanitary Exhibition, London, 1881; New Zealand International Exhibition, Christchurch, 1882 (Highest Award), &c.

Langdale (E. F.) (Price & Co.), 72 and 73, Hatton Garden, London; and No. 1 Warehouse, London Docks, London.—Drugs; Essences.

(*See also Section E.*)

Lister (J.) & Co., Mansion House Chambers, 11, Queen Victoria Street, London.—Chemicals.

(*See Descriptive Notice.*)

Longshaw (William) & Sons, Sankey Bridge Chemical Works, Warrington. — Carbolic Acid; Colours; Chemicals.

Maltine Manufacturing Company, Limited, 24 and 25, Hart Street, Bloomsbury, London.—Maltine Food; Beef Peptonoids; Victoria Bitter Water.

Ness & Co., Darlington. — "Tar Elixir" Sheep Dip and Cattle Dressing; "Thymo-Cresol" Disinfectant and Insecticide; Disinfecting Powders.

This firm exhibit specimens of their "Tar Elixir" Sheep Dip and Cattle Dressing, a concentrated preparation for Dipping or Washing Sheep, to free them from parasites; also used for Washing or Dressing Cattle, Horses, and, in fact, all Live Stock, to rid them of parasitic vermin.

The "Tar Elixir" mixes with water making a milky fluid of strong insecticidal properties. The "Wash" is harmless to Sheep, Cattle, Horses, and Man.

The "Tar Elixir" promotes Wool-growth, and besides being a Specific for "Scab" in Sheep, cures Mange, Ringworm, "Thrush," "Grease," and similar diseases, and makes a powerful Antiseptic healing lotion for all wounds.

The "Thymo-Cresol" Disinfectant, Antiseptic, and Insecticide, shown in the same case, is a compound of the most powerful disinfectants yet discovered. Dr. Cameron, the celebrated analyst of Dublin, says it is "an excellent germicide," and "an excellent sanitary agent."

The Disinfecting Powder of the same Firm is convenient for use where an absorbent powder would be better than a fluid.

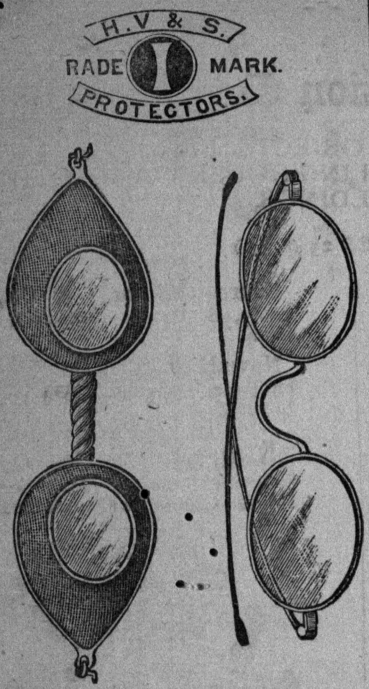
Circulars and full particulars may be obtained from Messrs. J. M. Johnson and Sons, of London (in the Exhibition Building).

The Firms of whom supplies may be obtained are: — Messrs. Mackenzie, Lyell and Co., Calcutta; Messrs. Pike and Co., Madras; Messrs. J. Maitland and Co., Limited, Colombo.

Rowcliffe (John B.) & Co., Sanitary Wire Mattress Works, Glossop, near Manchester.—Wire Mattresses for hospital and private use.

Sanitas Company, Limited, Letchford's Buildings, Three Colt Lane, Bethnal Green, London.—Disinfecting Fluids; Powder; Soap; Ointment; Antiseptic Gauze; Fumigators.

Vale (Henry) & Sons, 219 and 220, Summer Lane, Birmingham.—Wire Gauze Eye Protectors; Spectacles and Eye Glasses.



The Wire Gauze Eye Protectors, as exhibited, are manufactured exclusively by the Exhibitors, who are the Inventors and Patentees.

Every description of Eye Protector or Goggle is made to order by the Firm, who are Contractors to the Army, Navy, and Royal Dockyards. Price Lists and other particulars may be obtained in the Exhibition Building of their Agents, Messrs. J. M. Johnson & Sons, Limited.

Whiffen (Thomas), Lombard Road, Battersea, London. — Fine Chemicals.

Burgoyne (B.) and Co., London.—Drugs and Medicines.

Lalor (R. D.), London.—Patent Medicine.

Maignen (P.A.)—Patentee, Contractor to the Great Fisheries Exhibition and to H. M. War Office, 22 and 23, Great Tower Street, London, E.C. Agents for India, C. Lazarus and Co. Pure, Cool and Fresh Water obtained by using Maignen's Patent "Filtre Rapide."

1st. It can be taken entirely to pieces and thoroughly cleansed.

2nd. The Filtering Medium can be thrown away when exhausted and replaced by fresh in a few minutes at a very trifling cost.

3rd. It removes all organic matter, lead, copper and poisonous gases.

"A better filter could not be desired."—*The Lancet.*

"Cottage" *(Brown stoneware)*

	Filtering per hour
"Cottage" No. 1,	1 gall.
,, No. 2,	2 galls.
,, No. 3,	3 galls.

"Bijou D" *(Decorated White Porcelain).*

	Filtering per hour.
"Bijou" No, 1D,	1 gall.
,, No. 2D,	2 galls.
,, No. 3D,	3 galls.

Special Filters for the Cistern, and for Town and Village Waterworks.

Martin (R.) and Sons, London.—Spectacles and Eye-glasses.

A manufacturer who has for years catered specially for the Indian Market.

Morries Littie and Son, Doncaster.—"Phenyle."

Section D.

FURNITURE AND OTHER OBJECTS FOR THE USE OR DECORATION OF DWELLING-HOUSES AND OTHER BUILDINGS.

(*CLASSES* 23 *to* 37.)

Blackwood (Robert) & Sons, Burnside Works, Kilmarnock, Scotland.—Carpets.

Burroughes and Watts, 19, Soho Square, London.—Billiard Table.

Chapman, Sons, & Co., 2, Charterhouse Buildings, London.—Fancy Cabinet Goods.

Crossley (John) & Sons, Limited, Dean Clough Mills, Halifax.—Carpets; Rugs; Table Covers; Furniture Coverings, &c.

Diss (Alfred), 24A, Knightrider Street, Queen Victoria Street, London.—Household Fire Escape.

Edgington (Benjamin), 2, Duke Street, London Bridge, London (Agents for the Exhibition; Maynard, Harris & Co.).—Trestle Cot; Cabul Pál.

Hindley (C.) & Son, 290—294, Oxford Street, London (Agents for the Exhibition: Maynard, Harris & Co.).—Furniture Chintzes; Japanese Leather Papers.

King (Henry S.) & Co., 65, Cornhill, London.—Dak Bungalow Equipment.

Knight (Miss Mary), 1, Anderson Street, King's Road, Chelsea, London.—Hospital Quilt Patchwork (Texts of Scripture in eight languages).

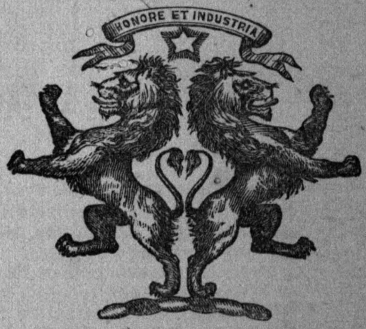
Light (C. & R.), Curtain Road, London.—Bedroom Suite of Furniture.

Nairn (Michael) & Co., Kirkcaldy, Scotland.—Floorcloth; Linoleum.

Newall (R. S.) & Co., Gateshead-on-Tyne.—Picture Cords, Gilt and Silvered, &c.

(*See also Section G.*)

Nordlinger (S. & C.), 44, Sackville Street, Manchester.—Printed Cretonnes (Furniture Prints).



TRADE MARK.

Messrs. S. & C. Nordlinger are producers of Printed Cretonnes, Velvets, &c., and General Merchants in all kinds of Manchester Goods and Yarns.

Ortelli (John) & Co., 48 and 49, Hatton Garden, London.—Gilt Console Tables; Cabinets; Mirrors in Gilt Frames.

Potter (C. & J. G.), Belgrave Mills, Darwen, Lancashire.—Paper Hangings.

Rigold (B.) & Bergmann, 82, Bishopsgate Street Within, London. —Mouldings for Picture and Looking Glass Frames.

Skitt & Co., 93, Sumner Street, Southwark Bridge Road, London.—Looking Glasses.

(*See also Section F.*)

Thurston & Co., 16, Catherine Street, Strand, London. — Billiard Table and Accessories.

The objects exhibited are not manufactured for show purposes, but taken from stock. The FIRST AWARD at the Sydney International Exhibition was obtained by the Exhibitors for a table of their ordinary manufacture.

That the Exhibitors look to quality rather than cheapness (although quality is really the test of cheapness) may be inferred from their having obtained a PRIZE MEDAL at the GREAT INTERNATIONAL EXHIBITION OF 1851, and their being Billiard Table Manufacturers to the Queen and the Prince of Wales, as well as to the principal London, provincial, and foreign clubs.

Cushions, which form a most important part of the Billiard Table, are in some instances constructed by Messrs. Thurston and Co. of an IMPROVED VULCANISED INDIA RUBBER, which possesses a speed nearly equal to that of the pure native india rubber, and is not affected by lowness of temperature, but these are not adapted for the climate of India, where the PURE RUBBER CUSHION is preferred, there being no difficulty in keeping the room ALWAYS WARM.

The Composition Balls exhibited are claimed to be the most perfect substitute for Ivory Balls, and are without doubt very successful. They are of the same material and colour throughout, and can be turned and polished like Ivory.

The Firm was established in 1814. The Agents at Calcutta are Messrs. Mackenzie, Lyall, and Co., The Exchange.

Vyse, Sons & Co., Wood Street, Cheapside, London.—Perfect Safety "Canopy" Cot.

Walters (D.) & Sons, 43-45, Newgate Street, London.—Furniture Silks and Trimmings.

Walton (Fredk.) & Co., Limited, Sunbury-on-Thames, Middlesex.—"Lincrusta-Walton" (the Sunbury Wall Decoration) in plain and decorated patterns.

Wright (Geo.) & Co., 162 to 164, Westminster Bridge Road, London. —Combined Billiard and Dining Table.

Aire & Calder Glass Bottle Works (E. BREFFIT & Co., Limited) (Agents at the Exhibition; J. S. Elmore and Co., Pollock Street, Calcutta), 83, Upper Thames Street, London; and Castleford, Yorkshire.—Glass Bottles; Aërated Water Bottles; Cases; Capped Pomades; Feeding Bottles.

Barnett & Foster, "Niagara" Works, 26, Eagle Wharf Road, London.—Syphon Bottles; Aërated Water Bottles; Beer Bottles.

The Exhibitors are Manufacturers of every description of Bottles for alimentary purposes, and Inventors and Manufacturers of the "London-made Syphon" Bottle. This Bottle is made of beautifully clear crystal glass, with tops of pure tin. Owing to the largeness of the outlet at spout, the full sparkling properties of the water are retained, so that a better water than is usually obtained from syphons is the result.

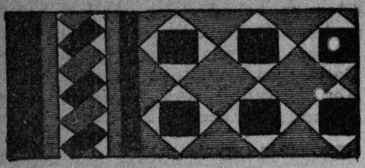
The Exhibitors are also patentees of the "Intermittent" Screw Neck Bottle, designed specially for malt liquors, and used largely in the United Kingdom. The improvement consists in making the Stopper of porcelain or glass with a vulcanite thread, instead of a soluble composition screw, that is likely to flavour or discolour the liquid with which it comes in contact.

Messrs. Barnett & Foster are sole Agents for Codd's Patent Aërated Water Bottle. Illustrated Catalogues may be obtained free on application.

(*See also Sections G. & H.*)

Boulton & Mills, Stourbridge, Worcestershire.—Crystal, Cut, and Ornamental Glass.

Boote (T. & R.), Burslem, Stafford. —Encaustic, Mosaic, and Ornamental Tiles; Earthenware.



The Tiles, as exhibited, are of careful and sound manufacture, good colour, hard texture, and general durability.

Messrs. T. & R Boote manufacture ENCAUSTIC AND PLAIN TILES for floors of Entrance Halls, Vestibules, and Public Buildings;

GLAZED TILES of every description, Plain, Tinted, Printed, Enamelled;

HAND-PAINTED ART TILES, for Walls, Jambs, Panels, Hearths, &c.;

PLAIN WHITE GRANITE, PRINTED AND DECORATED EARTHENWARE.

Whenever taking part in an International Exhibition this Firm has secured a Medal. Their awards include the Medals of the International Exhibitions of London, 1851 and 1862.

Bratby & Hinchliffe, Sandford Street, Ancoats, Manchester.—Syphons; Patent and Ordinary Bottles (all kinds), with and without stoppers.

The Syphons shown by this Firm are made in the most modern style. Thick glass of sufficient strength to resist the severe internal strain is used for the vases, the metal parts being of pure block tin, a substance in no way injurious to the liquids.

The Stopper applied to the patent internal stoppered bottles consists of a wooden plug, super-weighted to ensure proper filling, with an india-rubber ring around the centre.

Glass Bottles with specially formed necks are also included in the collection, as well as Bottles for corking, in all sizes and shapes. By many manufacturers of aërated waters the last-named bottles are preferred.

(See also Sections G. & H.)

Brownfield (William) & Sons, Cobridge, Staffordshire.—Useful and Ornamental China and Earthenware.

Codd (Hiram), 41, Gracechurch Street, London.—Codd's Patent "Globe" Stoppered Aërated Water Bottle.

(See Descriptive Notice.)

Craven, Dunnill & Co., Limited, Jackfield Works, near Ironbridge, Shropshire.—Geometrical Encaustic and Ceramic Mosaic Tiles; Enamelled and Decorative Art Tiles.

(See Descriptive Notice.)

Crystal Porcelain Pottery Co., Limited, Cobridge, Stoke-on-Trent, Staffordshire.—Vitreous and Non-Absorbent Tiles.

(See also Section G.)

Doulton & Co., Lambeth, London (Agents for the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta).—General Stoneware, consisting of Bottles for Spirits and Acids, Covered Jars, Funnels, Air-tight Covered Jars, Ink Bottles, Filters, Jars, Pitchers, Pans, Jugs, Mugs, Foot Warmers, Patent Manganous Carbon Filters, Refrigerator Filters, Table Filters, Carbon Blocks and Slabs Direct Service Filters, Pocket and Syphon Filters, and every description of Domestic Pottery; Mural Decorations in various kinds of Tile Work, in Plaques and Panels; Balustrades for Staircases; Terraces, &c., and Wall Fountains in Doulton Art Pottery.

Besides the Grand Prix and the Legion of Honour at Paris, Messrs. Doulton and Co. have received the highest awards at all the principal International Exhibitions, including those of London, Vienna, Philadelphia, Sydney, Melbourne; and at Amsterdam, "by acclamation."

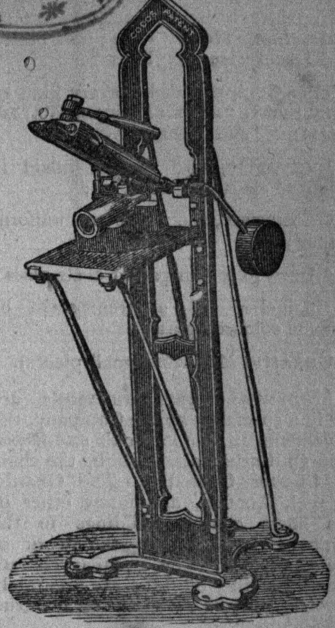
(See also Sections A., C., F., G. and I.)

Farnley Iron Company, Limited, Farnley, near Leeds (Agents for the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta).—Glazed Bricks.

Fell (Thomas) & Co., Limited, St. Peter's Pottery, Newcastle-on-Tyne.—Cream Colour Glass Ware; Enamelled Glass Ware, &c.

BENGAL SECRETARIAT LIBRARY

Codd (Hiram), 41, Gracechurch Street, London. Codd's Patent "Globe" Stoppered Aërated Water Bottle.



These Bottles possess many advantages over other bottles used for Aërated Waters. They are easily and quickly filled, easy and safe to open, the stopper is everlasting and cannot come out of the bottle. Glass being the only substance which comes in contact with the liquid, cleanliness is secured. The bottles are of great strength, the contents cannot deteriorate, and there are no corks to fly out or wire to rust, or to injure the hands in opening.

Eight hundred first-class firms in Great Britain are now using these Bottles, and thousands of grosses are being exported annually to the British Colonies and other parts of the world.

The use of these Bottles is always permanently ensured after they have been once tried.

The Sole Manufacturers are Messrs. Codd and Rylands, Hope Glass Works, Barnsley, Yorkshire, England.

Prize Medals were awarded in respect of these Bottles at the following Exhibitions:—

LONDON, 1873;
VIENNA, 1873;
LEEDS, 1875;
PHILADELPHIA, 1876;
PARIS, 1878 and 1883;
SYDNEY, 1881.

Craven, Dunnill & Co., Limited, Jackfield Works, near Ironbridge, Shropshire. — Geometrical, Encaustic and Ceramic Mosaic Tiles; Enamelled and Decorative Art Tiles.

This Company make every kind of TILE that is used for FLOORS, WALLS, CEILINGS, and FIRE-PLACES :—

ENCAUSTIC, the design inlaid in coloured clays and burnt in;

GEOMETRIC, the whole one uniform colour;

Glazed in a transparent clear glass;

Enamelled in a transparent or opaque coloured glass;

CERAMIC MOSAICS (small pieces).

MEDIÆVAL REPRODUCTIONS are made a speciality by the Company, the pavements in St. Patrick's and Christ Church Cathedrals, Dublin, the choir of Chester Cathedral, The Guards' Chapel, London, and many other of the finest church buildings in the United Kingdom, are the work of the Company. The peculiar characteristics of the old Tiles are accurately preserved, while the glaze and material are far superior.

The Company has for some time past given great attention to the production of beautiful and artistic COLOURED ENAMELS for domestic and other purposes, and their success has elicited the approbation of many of the leading Architects.

In FLOOR TILES, the jurors of the Yorkshire Fine Art Exhibition awarded their "Medal for the Design of the pavement of the Entrance Hall of the Exhibition, and in testimony of the admirable manner in which it has borne the traffic of more than half a million of visitors."

Prize Medals have been obtained at the following Exhibitions :—

LONDON, 1874;

PARIS, 1878;

YORK, 1879;

SYDNEY, 1880 (*two Medals*);

MELBOURNE, 1881;

BRADFORD, 1882.

Foreign Art Pottery Co., 27 to 31, Hatton Wall, London. — Art Pottery; Terra Cotta.

(*See also Section B.*)

Gateshead Stained Glass Co., Gateshead-on-Tyne. — Stained Window Glass.

Harrison (John), Linthorpe Pottery, Middlesborough-on-Tees.— Vases; Plaques; Flower Pots; Tea and Coffee Sets, &c.

Maw & Co., Benthall Works, Broseley, Shropshire.—Geometrical, Mosaic, and Encaustic Tile Pavements; Glazed Tiles for Hearths, Walls, &c.

Minton, Hollins & Co., Patent Tile Works, Stoke-upon-Trent.—Encaustic, Majolica, Enamelled, Art-painted, and Plain Tiles; Mosaics.

***Osler (F. & C.)**, Birmingham; and Oxford Street, London.—Glassware; Earthenware.

Patteson (J. & H.), Oxford Street, Manchester.—Marble Mosaic Tiles for Floor and Wall Decoration.

These tiles are made of pieces of coloured Marbles mixed with a special cement of great strength, and in tiles or slabs which can be easily laid by ordinary workmen. They are the most durable material for Floors and Walls. Steps, Pedestals, Mouldings, &c., are also made in this material.

Architects' own designs are executed by the Exhibitors without extra cost. They also undertake Marble and Granite work of every kind.

Pellatt (Apsley) & Co., Falcon Glass Works, 17, St. Bride Street, London. — Table Glass; Lustres; Chandeliers.

Silber & Fleming, 71, Wood Street, Cheapside, London.—Fancy Glass and China Goods for Table and Toilet use.

Sowerby's Ellison Glass Works, Limited (Gateshead Stained Glass Company), Gateshead-on-Tyne.—Crystal and Flint Table Glass (plain and coloured); Fancy Glass.

Stiff (James) & Sons, London Pottery, Lambeth, London.—Architectural Terra-Cotta of all kinds, both buff and red, plain and enriched, to suit every style of Architecture, Classic, Modern or Oriental Statuary, Groups and Single Figures; Originals or Copies of the Antique; Vases, Fountains, &c.

(*See Descriptive Notice.*)

Sugar (Max), St. Andrew Street, Holborn, London.—Mirrors, Brackets, Epergnes, &c.

Tuck (Raphael) & Sons, 72 and 73, Coleman Street, City, London.—Ornamental Terra Cotta Plaques and Ware; Artistic Room Decorations.

TRADE MARK

The various Productions of this Firm are all of a nature to suit alike artistic and popular tastes. They are specially adapted for the Indian and Colonial Markets.

Merchants and Shippers are invited to give these goods a trial. They are well known and have an extensive sale in the Home Market.

Illustrated Catalogues are supplied post free.

(*See also Section B.*)

Torquay Terra Cotta Company, Limited, Hele Cross Pottery, Torquay, Devonshire.—Fine Art Pottery in Terra Cotta.

Turnbull (Matthew), Cornhill Flint Glass Works, near Sunderland. —Pressed and Flint Glass.

Turner & Wood, Copeland Street Works, Stoke-on-Trent (Agents at the Exhibition: Ledger, Smith & Co.). — Parian; China; Terra-Cotta; Majolica; Earthenware.

Tyler (Hayward) & Company, 84 and 85, Upper Whitecross Street, London.—Patent Stoppered, Screw-Necked, Syphon and other Bottles for Aerated Waters.

The Syphon Bottles exhibited by this firm are of the first quality made. They can be fitted with Bailey's bulb for increasing the sparkling effect of the water when drawn into the glass. Messrs. Hayward Tyler & Company supply screw-necked patent bottles, Barrett & Elers', and all other kinds as required.

(*See also Section G.*)

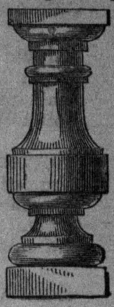
Walsh, Lovett & Co., Birmingham, Sheffield, and London; and Commercial Buildings, Calcutta.—Encaustic Tiles for Walls, Floors and Hearths.

(*See other Entries in this Section, also Sections F. & G.*)

Wuidart (J.) & Co., 55, Holborn Viaduct, London; and Jumet, Belgium.—Belgian Table Glassware.

Agents, Pittis & Son, at the Exhibition.

Stiff (James) & Sons, London Pottery, Lambeth, London.—Architectural Terra-Cotta of all kinds, both buff and red, plain and enriched to suit every style of Architecture, Classic, Modern or Oriental; Statuary, Groups and Single Figures, Original or Copies of the Antique; Vases, Fountains, &c.



Messrs. JAMES STIFF AND SONS have made ARCHITECTURAL TERRA-COTTA a SPECIALITY, and as the result of long experience are able to produce Goods which are UNIQUE as regards HARDNESS (imperishability), straightness, excellence of COLOUR and sharpness of ORNAMENT.

The following are some of the Architectural details for which Terra-Cotta is specially adapted and specimens of which are exhibited by Messrs. J. STIFF AND SONS: Cornices, Caps, String Course, Archivolt Enrichment, Pediment and Spandril Filling, Window Heads, Keystones, Doorways, Columns, Pilasters, Trusses, Panels, Balustrades, Terminals, Vases, Piers, Copings, Heraldic Shields, Lions, Statuary, &c.

The Groups of Statuary representing "AGRICULTURE" and "COMMERCE," executed in Terra-Cotta for the Parapets of Writer's Buildings, are allowed to remain on view during the Exhibition by the kind permission of the Government Architect.

The TERRA-COTTA for the following GOVERNMENT and other PUBLIC BUILDINGS has been manufactured by Messrs. J. STIFF AND SONS:—WRITER'S BUILDINGS, FINANCIAL BUILDINGS, MILITARY ACCOUNTS OFFICE, CENTRAL PRESS, PALACE OF H.H. The MAHARAJAH OF DURBHANGAH, &c.

Messrs. J. STIFF AND SONS have a large staff of skilled workmen, and can produce any quantity of work with the greatest promptitude; they have also a private dock attached to their works, by means of which goods can be shipped to any part of the world with the *minimum* risk of breakage in transit. The following notice from *The Builder*, March 25th, 1882, is given as a specimen of the best opinion as to the *quality* of their work.

"Messrs. STIFF AND SONS, Lambeth, have also this year (at the London Building Exhibition), a large and attractive display of Terra-Cotta, red and buff, including Cornices, String Course, Balustrades, Vases, Air Bricks, and Sanitary Stoneware of all kinds, all evidencing good manufacture. For excellence of firing and sharpness of Modelling the Architectural Terra-Cotta exhibited by this Firm includes some of the best work we have ever seen in this line."

Messrs. J. STIFF AND SONS also manufacture and exhibit ART STONEWARE, VASES, JUGS, &c., BROWN AND WHITE STONEWARE BOTTLES, JARS, JUGS, PANS, FILTERS, &c.

(For Electrical and Telegraph Pottery, Chemical Apparatus, and Crucibles, *see Section G.* For Drain Pipes, Enamelled Sinks, Sewer-Air Traps, and all kinds of Sanitary Stoneware, *see Section C.*)

PRIZE MEDALS AND AWARDS were obtained by the Firm at the following International Exhibitions:—

LONDON, 1862; PHILADELPHIA, 1876; CAPE TOWN, 1877; PARIS, 1878; LONDON (Sanitary), 1881; PARIS (Electrical), 1881; LONDON (Royal Horticultural), 1882, &c.

(*See also Sections C. and G.*)

Anglo-American Tin Stamping Company, Limited, Stourport, Worcester.—Blue and White and all White Enamelled Ware (plain, printed various designs, and hand painted); Bright Tinned Ware; Crystallised Ware; Japanned Ware (all seamless).

Baldwin, Son & Co., Stourport. —Cast Iron Enamelled Ware.

Brookes & Crookes, Atlantic Works, Sheffield. — Pen, Pocket, Sporting and Table Knives; Razors; Scissors; Button Hooks; Nail Files; Dressing Cases, &c.

TRADE MARK.

The Exhibitors are patentees and manufacturers of the Original Central-fire Extracting Knives, made with recent improvements to draw various sizes;

Patent Sine-Dubio Corkscrews;

Patent Polyblade Knife for French Bean Cutting;

Specialities in Ladies' Knives;

Knives for Smokers' use and Cigar Cutting;

"The Stanley Knife" (Registered) and others adapted for Explorers' use and Hunting purposes;

Also the well-known "Bell" Razor.

Two Gold Medals, and many other high honours, have been awarded to the Firm at the several International Exhibitions.

Butler (George) & Co., Limited, Sheffield.—Cutlery.

Dixon (James) & Sons, Sheffield. —Silver Ware; Electro Plated Ware.

(*See Descriptive Notice.*)

Evans & Wormuh, 31, Stamford Street, London.—Cutlery.

(*See also Section C.*)

Fearncombe (H.) & Co., Wolverhampton (Agents for the Exhibition: Ledger, Smith & Co.). — Tinplate, Steel, Brass, Japanned, and Nickel-plated Wares.

(*See also Section E.*)

Gerber (August) (per EYRE & SPOTTISWOODE, London).—Bronzine.

Bronzine is a new and beautiful invention for decorative purposes. Goods made of it are of moderate price and of the same appearance as bronze.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Johnson (Christopher) & Co., Sheffield.—Cutlery.

Messrs. Eyre and Spottiswoode are the Sole Export Agents for these manufactures, which are of good material, highly finished, and really cheap.

Jones Brothers & Co., Ablow Street, Wolverhampton. Show Rooms: Devonshire Square, Bishopsgate Street, London.—Tinned and Enamelled Stamped Steel Hollow Ware; Tinned Wares; Japanned Wares; Steel Travelling Boxes.

(*See Descriptive Notice.*)

Loveridge (Henry) & Co., Meridale Works, Wolverhampton.—Tinplate, Iron, Brass, Copper, Japanned, and Nickel-plated Wares.

(*See Descriptive Notice.*)

Mappin & Webb, 2, Queen Victoria Street, London; and Norfolk Street, Sheffield. — Electro Silver Plate; Cutlery.

(*See Descriptive Notice.*)

Orme, Evans & Co., Wolverhampton.—Hollow Ware.

These goods are manufactured especially for the Indian market at moderate prices. They are strongly made and well finished.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Dixon (James) & Sons, Sheffield.—Silver Ware; Electro Plated Ware.

The Exhibitors are Merchants and Manufacturers of Silver Presentation Plate, best Sheffield Electro Plate, Nickel Silver & Electro Spoons & Forks, Dessert and Fish Knives and Forks, &c.; Modern Crown Derby China, with Electro Plate or Silver Mounts; Britannia Metal Wares, and Electro Plated Britannia Metal; Earthenware Jugs, with Britannia Metal and Plated Covers; Hunting Flasks and Canteens, Dram Bottles, Hall's Patent Pocket and Hunting Flasks, Breechloading and Gun Implements, Powder Flasks, &c.; also Makers of Cyanide of Potassium, Polishing Paste, and Plate Powder.

In order to distinguish their Manufactures from those of other Firms who mark their goods with the initials "J. D. & S.," the Exhibitors have adopted a Trade Mark which is now stamped upon all goods of their Manufacture.

At the International Exhibitions of London, 1851 and 1862; Paris, 1855; Chili, 1875; Akola, Central India, 1868, and Melbourne, 1880, Prize Medals were awarded to the Firm.

The London House is at 37, Ludgate Hill. The representatives of the Firm at the Exhibition are Messrs. T. E. Thomson & Co., of Calcutta.

Pemberton (Thomas) & Sons, Birmingham (Agents at the Exhibition: Sinclair, Hamilton and Co, 35, Clive Street, Calcutta).—Cabinet and Decorative Brassfoundry for Builders.

Potosi Company, Barr Street, Birmingham.—Potosi Silver; Electro Plated Spoons and Forks.

The Potosi Silver is a very beautiful alloy, equal in utility to silver, and is warranted to wear white. It is low in price, and has an elegant appearance, which it preserves after long wear.

The Sole Export Agents are Messrs. Eyre and Spottiswoode, of London.

Pound (John) & Co., 81, 82, and 83, Leadenhall Street, London.—Cutlery.—

(*See also Section E.*)

Peyton & Peyton, Birmingham.—Brass, Nickel, and Iron Bedsteads, &c.

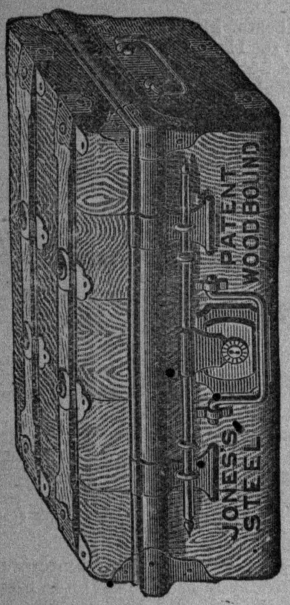
The Exhibitors are the patentees and original manufacturers of Brass and Iron Bedsteads with dovetail joints and other improvements, which since the expiration of their patent have been universally adopted.

The manufactures of the Firm have been shown in twelve International Exhibitions, and in every one obtained the highest award:—

London, 1851 *and* 1862;
Dublin, 1865;
Paris, 1867, 1875 *and* 1878;
Vienna, 1873;
Philadelphia, 1876;
Sydney, 1879;
Melbourne, 1880;
Adelaide, 1881;

Agents, T. E. Thomson & Co., Calcutta.

Jones Brothers & Co., Ablow Street, Wolverhampton. Show Rooms: Devonshire Square, Bishopsgate Street, London.—Tinned and Enamelled Stamped Steel Hollow Ware; Tinned Wares; Japanned Wares; Steel Travelling Boxes.



The manufactures of this Firm include:—
Patent Steel Wood Bound Overland Travelling Boxes, Berth and Mule Trunks, Despatch, Deed, Cash, Bonnet Boxes, &c.; Registered Folding Wash Stands, Tables, Toilet Sets.

In addition to every description of Tinned and Japanned goods, the Exhibitors also manufacture:—

Steel Seamless Hollow Ware, Tinned and Enamelled;
Baths—Hip, Sponge, and Travelling;
Papier Maché and Japan Tea Trays;
Dish Covers, Jelly Moulds;
Tea and Coffee Pots; Patent Kettles; Lamps and Lanterns;
Enamelled Dinner and Soup Plates; Basins; Pie Dishes;
Tea and Coffee Cups with Saucers; Candlesticks; Spittoons;
Enamelled Advertising Tablets, Street Plates, &c.

Price Lists and full particulars may be obtained in the Exhibition Building, at the office of Messrs. J. M. Johnson and Sons, Limited, of London.

Orders are executed through any British Merchants.

Loveridge (Henry) & Co., Merridale Works, Wolverhampton. —Tin-Plate, Iron, Brass, Copper, Japanned, and Nickel-Plated Wares.

The manufactures of this firm include:—

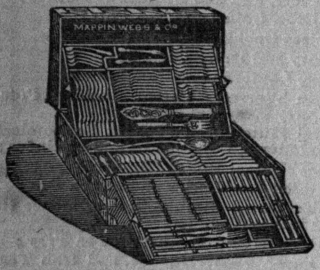
Fish Kettles, Saucepans, Stewpans;
Meat Screens, Soup Tureens;
Dish, Plate and Chop Covers;
Hot Water Plates and Dishes;
Hot Plate, Tea and Bronchitis Kettles;
Cafetières, Coffee and Tea Pots;
Seamless Cooking Vessels;
Culinary and Dairy Utensils;
Lamps, Lanterns and Candlesticks;
Captain Warren's Patent Cooking Pots, Curry Pans and Broilers;
General Hutchinson's Patent Economical Cafetières, Coffee Urns and Matinées;
Hughes' Patent Police Lanterns;
Registered Candlestick and Match Box;
Seamless deep Basins from 4 inches to 36 inches diameter;
The Registered Combination Tea Tray;
Fine Paper, Papier Mâché, and Iron Tea Trays, Waiters, and Bread Baskets;
Coal Scoops, Coal Vases;
Cash, Deed, Writing and Despatch Boxes;
Uniform, Hat and Bonnet Boxes;
The "Southport" and "Merridale" Trunks;
The Registered Lady's and Gentleman's Steel Travelling Cases;
The Registered Tourist's Bath;
Feet, Sponge, Sitz and Hip Baths;
Plunge, Shower and Vapour Baths;
Washing Stands and Toilet Ware;
The Patent Victoria Regia Sponge, Sitz and Hip Baths and Basins;
The Patent "Queen," "Prince," "Chester," "Dublin," and "Belfast" Coal Scoops.
The Patent Safety Fastener for Travelling Trunks and Boxes;
Brass Coal Scoops with Repoussé Panels;
Brass Toilet Sets, Water Jugs and Ewers.

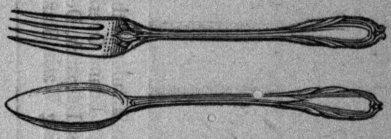
Messrs. Henry Loveridge and Co. received the Only Prize Medals in London, 1862, and Paris, 1867, for "Excellence of Design and Manufacture" in their particular industry.

The above firm is represented in Calcutta by Messrs. T. E. Thomson and Co., 9, Esplanade Row.

Mappin & Webb. London Warehouses: Mansion House Buildings, City; and Oxford Street, West End. Manufactory: The Royal Cutlery and Plate Works, Sheffield.—Sterling Silver; Electro Silver Plate; New Patent Table Knives; Hotel, Club, and Regimental Mess Requisites; Presentation Plate for Testimonials, Racing Trophies, &c.; Pocket Cutlery; Hunting Knives; Emigrants' Knives; Razors; Scissors, &c.

Messrs. Mappin & Webb, Contractors to Her Majesty's Government, have been established many years at Sheffield. The manufactures of the Firm in Sterling Silver, Electro Silver Plate and Cutlery are well known throughout the world. The Electro Silver Wares being heavily plated on hard Nickel Silver, are specially adapted for use in India, where they are liable to rough treatment at the hands of native servants. Testimonials to this effect are frequently received from the principal Clubs, Hotels, and Mess Presidents.



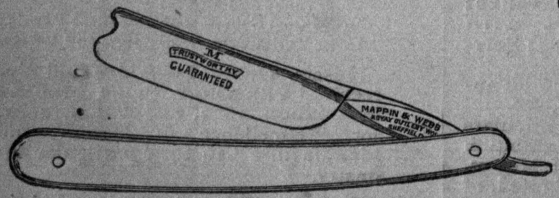


Services of Plate and Cutlery are kept in stock by the Exhibitors in all sizes, fitted in well-seasoned oak chests, ready for immediate despatch. The chests are fitted for one, two, four, six, twelve, or eighteen persons to order as required. They are well known in India.

The Exhibitors have invented and patented a new screw-fast arrangement for securing the handles of Table Cutlery, entirely superseding all previous methods. The use of the unsightly side-rivet is rendered unnecessary, and the handles cannot become loose. For India and hot climates this arrangement is invaluable.

Table Knives with Ivory, Pearl, Staghorn, Silver, Electro Silver, and other handles; and Presentation Carvers in cases, with tusk handles, silver mounts, &c., are also shown.

The manufactures of the Firm comprise also every description of Pocket and Spring Cutlery, Pen Knives, Sportsmen's Knives, Travellers' Knives, Razors, Scissors, &c. Each article is made from the finest steel only, is hand-wrought and carefully tempered.



TRADE MARK.

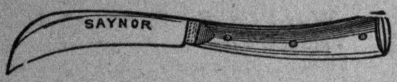
All Cutlery manufactured by the Exhibitors bears their Trade Mark, and purchasers should be careful to see that they obtain this brand.

All information and full descriptive catalogues may be had free on application in the Exhibition, or direct from the London addresses as above.

(*See also Section E.*)

Rawson Bros., Carver Street, Sheffield (Agents at the Exhibition: J. S. Elmore & Co., Pollock Street, Calcutta).—Cutlery.
(*See also Section G.*)

Saynor, Cooke & Ridal, Sheffield.—Cutlery.



The Exhibitors are manufacturers of Garden Shears, Pruning Saws, Plantation Hoes, and all kinds of Horticultural Tools, Pruning, Budding and Grafting Knives, Vine and Pruning Scissors.
They are represented at the Exhibition by Messrs. T. E. Thomson & Co., 9, Esplanade Row, Calcutta.
(*See also Section I.*)

Scott (G. W.) & Sons, 43, Old Compton Street, Soho Square, London (Agents for the Exhibition: Maynard, Harris & Co.).—Enamelled Ware; Luncheon Baskets.

Sheldon (Edward) & Co., Cannon Iron Foundry, Deepfields, near Bilston, Staffordshire. — Enamelled and Tinned Cast Iron Hollow Ware; Cooking Utensils, &c.

Tinplate Decorating Co., Melyn Tin Works, Neath, South Wales.—Decorated and Crystallised Tin Plates; Articles manufactured therefrom.

Walker & Co., Dudley.—Buckets and other Galvanised Ware.

Walsh, Lovett & Co., Birmingham, Sheffield and London; and Commercial Buildings, Calcutta.—Repoussé and Plain Polished Brass Work; Copper Kitchen Utensils, &c.
By the introduction of the Repoussé Work, above mentioned, in house furnishing, a bright and cheerful effect is produced. The article is of great durability and, being lacquered, does not require cleaning.

Self-Opening Tin Box Company, 19, Kirby Street, Hatton Garden, London.—Tin Boxes.

These Tins are, without soldering up, both air and water tight. Provisions can be preserved in them for any length of time, by simply pressing down the covers level with the tops. They can be opened in a moment by the leverage of a penny-piece, or any coin of the same size.
Large and Small Tea Chests, Biscuit Boxes, &c., decorated and plain, are made on the same principle.
No dust or insects can penetrate the tins. No increase of cost is incurred beyond that of ordinary tins.
Applications should be made to Messrs. J. MACKILLICAN & Co., 7, Church Lane, Calcutta.

Walsh, Lovett & Co., Birmingham, Sheffield, and London; and Commercial Buildings, Calcutta.—Hardware for Engineers and Builders.

SEMPER IDEM.

TRADE MARK.

(See other Entries in this Section, also Sections F. & G.)

Constantine (Henry) & Co.—Watch Glasses.

Donne (Lewis), London.—Watches.

Mojon, Montandon & Co. (per EYRE & SPOTTISWOODE, London).—Gold and Silver Watches.

These watches are specially selected for India, and are exhibited not as specimens of cheapness but of high quality.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Parkinson & Frodsham, 4, Change Alley, Cornhill, London (Agents for the Exhibition: Maynard, Harris and Co.).—Watches; Clocks.

Perrier (M. A.) (per EYRE & SPOTTISWOODE, London).—Silver Watches.

These Watches are exhibited as specimens of cheapness. Being as low in price as half a guinea, they may be considered as within the reach of all classes.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Samuel (A.) & Son, 29, Ely Place, London.—English-made Watches.

This exhibit includes London-made Watches of every description, all fully guaranteed and warranted. Catalogues may be obtained at the Stand in the Exhibition Building.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Ward (H. S.) & Co., 58, Holborn Viaduct, London (Agents at the Exhibition: Maynard, Harris and Co.).—Clocks; Aneroids.

Albion Lamp Co., Birmingham.—Kerosene Stoves.

Alder & Mackay, Grange Meter Works, Edinburgh (Agents at the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta).—Wet Gas Meters.

Capell (R. A.), 18 and 19, Bloomfield Street, London Wall, London.—Thermantidotes; Exhaust Fans; Blast Fans; Air Cooling Apparatus.

(See also Section I.)

Clarke (Samuel), Pyramid Night Light Works, Child's Hill, London.—Pyramid Food Warmers; Pyramid Night Lights.

(See Advertisement.)

Cochran (A. & R.), St. Rollox Flint Glass Works, Glasgow.—Gas Moons and Shades; Lamp Globes; Chimneys, &c.

This Firm exhibit Specialties in Globes for Electric lighting. They are also Manufacturers of every description of Cut and Engraved Glassware for Table use, &c.

Agent:—Mr. Charles E. Angus, 5, Fairlie Place, Calcutta.

Duffield & James, Alexander Stamping Works, Monmer Lane, Willenhall (Agents at the Exhibition: Ledger, Smith and Co.. — Gas Fittings, &c.

(See also Section I.)

Glenboig Union Fire Clay Company, Limited, 4, West Regent Street, Glasgow.—Fire Bricks; Raw Fire Clay; Ground Fire Clay; Gas Retorts.

The manufactures of this Company include:—

All descriptions of Fire Clay Goods. The Company are sole makers of the "Glenboig Star" and the "Glenboig" Fire Bricks and Blocks, employed extensively in the construction of furnaces subjected to high and long sustained heat and sudden changes of temperature, such as Steel Furnaces, Forge, Blast and Puddling Furnaces, Siemens' Regenerators, Copper Roasting, Calcining, and Refining Furnaces, Gas, Chemical, and Glass Furnaces (the above-named brands are used by the leading firms in every metal-smelting country in the world, and in the principal national arsenals); Gas Retorts of unequalled quality, of every shape and size, with the best settings; Glazed Sewage Pipes of all sizes, Cattle Troughs, and every description of salt-glazed fire clay goods; Blocks and Bricks for Blast Furnaces, Coke Ovens, Cowper's and Whitwell's Stoves; also the special bricks of the Siemens and Siemens-Martin Furnaces. Basic Bricks for the Thomas Gilchrist Steel process and Blue Bricks for Acid Chambers are also manufactured by the Exhibitors. Each Brick bears one of the registered Trade Marks.

TRADE MARKS.

GLENBOIG.

STAR WORKS.
J • ✲ D
GLENBOIG.

CUMBERNAULD.

Twelve Medals in each case, the Highest Award, have been secured in respect of these manufactures:—

Chili, 1875, *Paris*, 1878 (3 *medals*); *Sydney*, 1879 (2 *medals*); *Melbourne*, 1880 (3 *medals*); *Glasgow Philosophical Society*, 1880 (2 *medals*); *London Smoke Abatement Exhibition*, 1882.

Shipping Ports: Glasgow, Greenock, Grangemouth, South Alloa, Bon'ess, Leith, &c.

(See also Section C.)

Harriman (Wm.) & Co., Limited, Blaydon-on-Tyne. — Fire Bricks; Sanitary Pipes; Glazed Bricks, &c.

Heaton (Ralph) and Sons, The Mint, Birmingham.—Gas Fittings; Water Fittings.

(See also Sections A. and C.)

Hinks (James) & Son, Limited, Birmingham; and 60, Holborn Viaduct, London.—Lamps for burning Hydro-Carbon Oils.

(See Descriptive Notice.)

Prince & Symmons, 128 and 130, Commercial Street, London (Agents: J. S. Elmore and Co., Pollock Street, Calcutta). —Lamps.

Priory Brass Co., 38, 39 and 40, Coventry Street, Birmingham.—Gas, Steam and Water Cocks, Fittings, &c.

Silber Light Company (Proprietor, A. M. SILBER), 49, Whitecross Street, London.—Oil Lamps; Gas Lamps; and other lighting apparatus.

Walsh, Lovett & Co., Birmingham, Sheffield, and London; and Commercial Buildings, Calcutta. — Chandeliers; Gas Fittings.

Soutter's Patent Chandelier Water Indicator, affixed to Water Slide Chandeliers, affords perfect security against gas explosions and prevents the escape of gas, forms a reservoir for the water, and a handsome cut glass ornament in the centre of the rod.

(See other Entries in this Section, also Sections F. & G.)

Wilson Engineering Company, Limited, 227, High Holborn, London (Agents for the Exhibition: Balmer, Lawrie and Co., 5, Clive Street, Calcutta).—Portable Cooking Ranges.

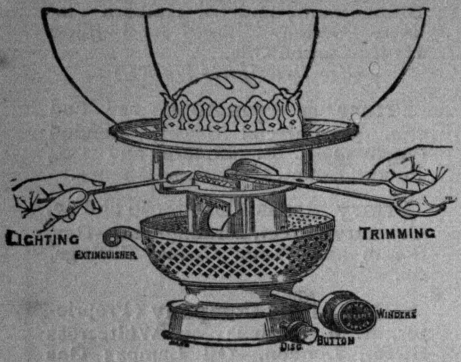
Wright & Butler, Limited, New John Street West, Birmingham.—Kerosene Lamps and Chandeliers; Oil Cooking Stoves; Wall Lamps and Lanterns.

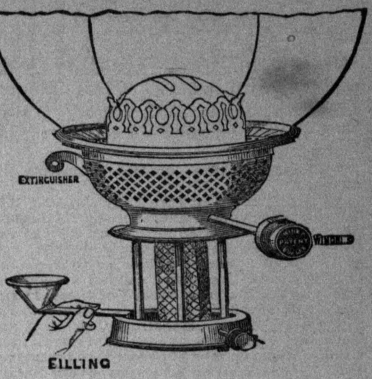
(See Descriptive Notice.)

Young's Paraffin Light and Mineral Oil Company, Limited, 7, West George Street, Glasgow.—Lamps for Burning Paraffin Oil and Petroleum; Lamp Fittings, &c.

(See Descriptive Notice.)

Hinks (James) & Son, Limited, Birmingham ; and 60, Holborn Viaduct, London.—Lamps for burning Hydro-Carbon Oils.





The fifth Patent Duplex Lamp, exhibited by Messrs. James Hinks and Son, the inventors and manufacturers, can be Filled, Trimmed, Lighted, and Extinguished without removing burner, globe, or chimney.

Punkah Lamps, composed of glass and metal, Doulton ware, painted china, &c., in a great variety of styles and colours, also form an important feature of this collection.

Wright & Butler, Limited, New John Street West, Birmingham.—Kerosene Lamps and Chandeliers ; Oil Cooking Stoves ; Wall Lamps and Lanterns.

THE PUNKAH LAMP.

Kerosene Lamps and Chandeliers in great variety, and all capable of being rendered actually "Punkah" proof, are manufactured by the Exhibitors.

The "PUNKAH" BURNERS give a most steady and brilliant flame when in use. They are made in three styles, and are especially attractive when fitted up.

The "ECLIPSE" NO-CHIMNEY BURNER, well known in India, is an invention whose value is shown by the greatness of the demand.

The "MULTUM IN UNO" Duplex Burner, a new invention of the firm, secures the easy filling, lighting and extinguishing of the lamp, without the removal of either globe or chimney.

All lamps and chandeliers manufactured by this Company can be fitted up with Punkah fittings and protectors.

The Petroleum Cooking Stoves, one of the chief features of the collection now exhibited, are remarkable for their perfect safety, simplicity and great efficiency. These qualities have obtained for them an enormous sale. The Stoves are made in sizes to suit all requirements.

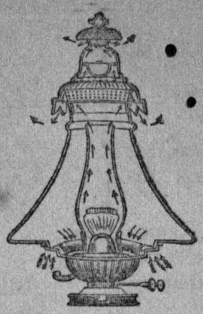
Lamps fitted with burners of any kind to suit the market requirements are supplied by the Exhibitors.

Pattern books may be obtained gratis by merchants and the trade.

The representatives of the firm at the Exhibition are Messrs. J. A. Johnson & Sons, Limited, from whom all information can be obtained.

Young's Paraffin Light and Mineral Oil Company, Limited, 7, West George Street, Glasgow.—Lamps for Burning Paraffin Oil and Petroleum; Lamp Fittings, &c.

YOUNG'S KAISAR-I-HIND PATENT PUNKAH BURNER AND PROTECTOR.



Sectional view of Duplex Burner, Shade and Top, showing how the air is admitted to the flame.

This Company were the First Manufacturers of Lamps suitable for Paraffin Oil and Petroleum.

Their Trade List includes:—

TABLE LAMPS in a large variety of Classical and Effective Designs, Cut Crystal and Electro-Gilt RENAISSANCE, Electro-Plate QUEEN ANNE, &c., also various styles in Polished Brass, Bronzed, Enamelled, Embossed, Bohemian Ware, &c.;

HALL LAMPS in Early English and other styles;

CHANDELIERS in the most modern styles;

SUSPENDERS in great variety;

CORONAS, Polished Brass and Illuminated Iron, strongly constructed;

BRACKETS in Elegant Modern Designs, Highly Finished in Electro-Plate, Polished Brass, and Bronzed;

BILLIARD LIGHTS of the Most Approved Design, strong and well finished;

WALL LAMPS, substantial, cheap, and very useful;

HAND LAMPS in great variety;

COOKING STOVES constructed on the most approved principles, free from smoke and smell;

YOUNG'S "KAISAR-I-HIND" PATENT PUNKAH BURNERS AND PROTECTORS.

The Company invite special attention to their new Patent Wind-Proof or Punkah Arrangement, adaptable to all sizes of Burners.

The Burners and Protectors are of the best Materials, Workmanship, and Construction. While air is freely admitted to ensure perfect combustion, the arrangement is such that the steady burning of the light is not affected by strong currents such as are produced by Punkahs. The best results are to be obtained with the Patent Burner, Shade and Top combined, but the Duplex Burner can also be used with any other Duplex Punkah Shade or Top.

The extinguisher applied to the Duplex Punkah Burner is simple and efficient. It has no spring, and is not liable to breakage or derangement.

*** The Company's Designs are all Registered.

The Registered Offices of the Company are at 7, West George Street, Glasgow; their London Office and Show Room at 70, Bishopsgate Street Within; and their Lamp Manufactory at Birmingham.

Certaldo Marble Company, Limited, Canal Road, York Road, London.—Marble Tiling.

Jackson (Geo.) & Sons, 49, Rathbone Place, Oxford Street, London.—Patent Fibrous Plaster.

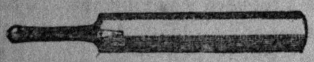
Ayres (F. H.), 111, Aldersgate Street, London.—Outdoor and Indoor Games.

The Outdoor and Indoor Games for which the necessary materials and appliances are manufactured by the Exhibitor include:—

LAWN TENNIS;
CRICKET;
CROQUET;
ARCHERY;
LAWN BOWLS;
FOOTBALL;
FENCING;
CHESS;
DRAUGHTS;
DOMINOES;
CRIBBAGE;
BACKGAMMON;

Illustrated Catalogues of articles manufactured by the Exhibitor may be had upon application to him at the address above named or of his agents in the Exhibition building.

Duke & Son, Penshurst, Kent.—Cricket Balls and Appliances.



All the Goods, as exhibited by Messrs. Duke & Son, are guaranteed of the best perfectly seasoned material and workmanship.

The Match Balls are used by the County Cricket Clubs of Kent, Sussex and Surrey, as well as by many other clubs, and have an extensive sale in the Colonies.

At the London International Exhibitions of 1851 and 1862 Prize Medals were awarded to Messrs. Duke and Son, who also received the Highest Awards at the Sydney, Melbourne, and Adelaide Exhibitions.

Feltham & Co., Little Britain, London.—Archery; Lawn Tennis; Cricket, and other Games.

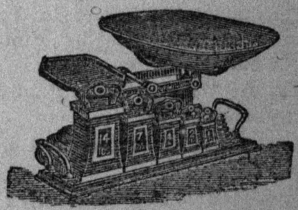
The "Climax" Lawn Tennis Bat, as exhibited, has been adopted by all the principal lawn tennis clubs in England.

The name "Feltham," as a brand on cricket bats, is recognised as a guarantee of excellence.

The Sole Export Agents are Messrs. Eyre and Spottiswoode, of London.

Lillywhite (James), Frowde & Co., 4 and 6, Newington Causeway, London (per MAYNARD, HARRIS & COMPANY).—Appliances for Cricket, Lawn Tennis, and other Athletic Sports.

Avery (W. & T.), London and Birmingham.—Scales for Domestic Use.



This machine is a combined stand with weights, occupies very little space, and is readily removed.

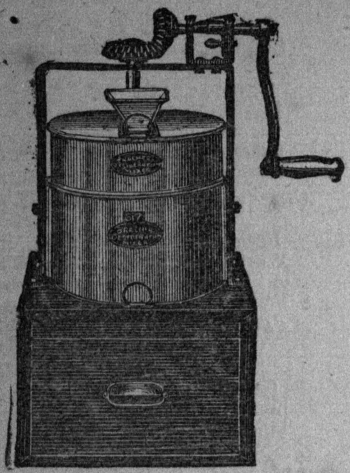
(*See also Sections B., C., G. and I.*)

Bracher (Philip Henry) & Company, 77, High Street, Wincanton.—Mixing Machines.

(*See Descriptive Notice.*)

Kent (George), 199, 200, 201, High Holborn, London.—Knife Cleaning Machines; Refrigerators; Ice Making Machines, and other domestic labour-saving appliances.

Bracher (Philip Henry) & Company, 77, High Street, Wineanton.—Mixing Machines.



All the Machines as exhibited in this collection are designed and manufactured by the Exhibitors, who confidently recommend them for simplicity, strength, and good workmanship.

They are admirably adapted for mixing all kinds of powders, heavy or light, large or small quantities, in the shortest possible time, thereby *superseding to a great extent the use of the Pestle and Mortar*, and supplying a long-felt want amongst Chemists and Druggists, Grocers, Confectioners, Drysalters, Colour Merchants, and Manufacturers.

Among the many advantages claimed for these Machines the following may be mentioned:—

Firstly—The ingredients may be placed in the sieve separately with quite as good an effect as if they were previously thrown together.

Secondly—As the mixing, sifting, and crushing are simultaneously performed, the contents may be discharged when from 40 to 60 revolutions have been effected after passing through the sieve.

Thirdly—By the action of the Crusher on the sieve the powders are reduced more RAPIDLY and THOROUGHLY by a COARSE mesh than was formerly done by a FINE one.

Fourthly—The sieves may be ENTIRELY DISPENSED WITH if none of the powders contain concrete lumps.

Fifthly—They can be worked either *with* or *without* the cover, are easily cleaned, and effect thorough blending in an incredibly short space of time.

Messrs. P. H. Bracher and Co. confidently declare that these Mixing Machines are the cheapest and best ever invented.

All sizes are kept in Stock, but Sieves are manufactured only on Receipt of Order.

Kent (G. B.) & Sons, 11, Great Marlborough Street, London.—Brushware.

Patent Pulp Manufacturing Company, Limited, Thetford, Norfolk; and 79, Colemans Street, London (Agents: J. S. Elmore and Co., Pollock Street, Calcutta.)—Basins; Trays; Fancy Goods.

Potter (F. W.), 16, Hill Street, Finsbury, London (Agents at the Exhibition: Balmer, Lawrie & Co., 5, Clive Street, Calcutta).—Sieves, Screns, Wire Gauze; Wire Work.

Thomas (J. J.) & Co., 87, Queen Victoria Street; and 285 and 362, Edgware Road, London.—Bird Cages; Domestic Wire Work Sieves.

(*See also Section I.*)

Wing (Geo.), Plane Tree Works, Sheffield.—Carved Bread and Butter Platters, Knives, &c.

Yates (John) & Co., Pritchett Street, Birmingham, and Exchange Works, Aston Manor, Birmingham.—Steel Toys of all Descriptions.

(*See also Sections G. and I.*)

Allen (W. T.,) and Co., 2, Somerset Buildings, Lambeth Hill, London.—Ornamental Castings.

Aluminium Crown Metal Co., London.—Lamps; Metal-vare; and Hardware.

Betjemann (G.) & Sons, Pentonville Road, London. Agents, The Great Eastern Hotel, Wine and General Purveying Co., Ld. —Specimens of antique, mediæval and modern work in Gilt Ormolu Metals, Algerian Marble, Ornamental Woods, &c.

Bevington, (Thomas) China Manufacturer, Burton Place Works, Hanley, Staffordshire: *Agents C. Lazarus & Co., Calcutta.* Art Pottery Earthenware, Porcelain Dinner ware; Flowered and Ornamental Porcelain ware, and the new Victorian ware.—An entirely new production in fancy goods, which is very ornamental, highly artistic and has the appearance of Gold quartz made in the usual shapes of of flower holders and other fancy goods. The ground part is of a deep rich gold and sprinkled upon surface in the crushed white mineral spa, having the appearance of beautiful crystaline white quartz. It is most suitable for decorative purposes owing to the pretty white crystal-frozen resemblance to hailstones.

Boulton and Mills, Glass Manufacturers, Andnam Glass Works, Stourbridge, *Agents, C. Lazarus & Co., Calcutta*—Richly cut Table Glass; Ornamental Glass; Flower Vases, and Bowls in all the new colors; Ornamental Lamps in cut crystal and coloured Glass Vases and Pedestals; Cut Crystal Teapoys and Fancy articles.

Bugg (Wm.)& Co., Ld., Vincent Works, London—Lamps; Globes; Burners, etc.

Cowan (W. B.), London and Edinburgh.—Gas Meters, etc.

Defries (J.) & Sons, 147, Houndsditch, London; Paris; and 70, Bentinck Street, Calcutta.—Glassware; Crystal Chandeliers; Lamps; China; Earthenware.

(*See Advt. on Inside Back Cover.*)

Forester (T.) and Sons, Phœnix Works, Longton, Staffordshire-of Majolica and Earthenware.; Fancy and Ornamental Earthenware. *Agents, C. Lazarus & Co., Calcutta.*

Guest Bros., Brettle Lane, Stourbridge.—Ornamental Glass of all kinds.

Hendry Whyte and Strachan. National Floor Cloth Works, Kircaldy,—Floor Cloth and Linoleum.

Llewellin.—Patent Time-Checking Machine for workmen and others.

Sugar (Max), Roseleigh Flint Glass Works. Agents, C. Lazarus and Co., Calcutta.—Manufacturers of Flint and Colored Glass goods, Silvered by the new patent process; Best Plate Glass; Metallic and Velvet Mounted Plateaux; Girandoles; Venetian Mirrors; Brackets for decorations, all shapes and sizes.

Shotts Iron Co., Glasgow; Agent, MacDowell Methven & Co., 7, Wellesley Place, Calcutta.—Pig Iron.

Sugg (Wm.) and Co., Ld., Vincent Works, Vincent Street, London—Lamps, Globes, Burners and Coffee Roaster.

M'Caw, Stevenson and Orr, Patentees and Manufacturnes, the Linnehall Works, Belfast, Ireland. *C. Lazarus & Co., Calcutta, Sole Agents for India.*—Patent Glacier Window Decoration.

It may be assumed that in all countries where glass is used to admit light to dwellings, one or more of the windows or doorways of every house would be improved, if stained glass were used as filling in place of the ordinary clear glasss Whatever be the intended object—the shutting out of a disagreeable view, the toning down of an excess of light, or the simple beautifying of the interior, Stained Glas. is an article which might be used with advantage in every building, and nothing but its extremely high cost prevents its extended use. Many substitutes have been devised, but they also have been high-priced, difficult in their application, and often unsatisfactory in effect.

The Patent "Glacier" Window Decoration has the merit of approaching real Stained Glass in colour and appearance more nearly than anything previously introduced, and is at the same time so easy to affix, that even children in using it produce excellent results with very slight instruction.

The invention has, in a very short space of time, found its way into nearly every quarter of the globe, and has everywhere received the favourable notice of the press.

Templeton (James) and Co., 77, Newgate-street London and William Street Greenhead, Glasgow. Represented by C. Lazarus and Co., Calcutta-—Axminster Carpets and Rugs; English-made Persian Carpets and Rugs; Mecca and Yeddo Rugs; Brussels and Wilton Carpets, fillings and borderings, whole wove carpets to elegant designs for large halls, durbar rooms &c,

Thomlinson, Bakewell, Derbyshire.—Inlaid Table of Derbyshire Black Marble.

Thomson (T. E.) & Co., 9, Esplanade Row, Calcutta :—Coalbrook Dale Co.'s real Bronze Statues ; Gold Bronzed Chairs and Seats ; Illuminated Chairs, Tables and Hat Stands.

Thomson (T. E.) & Co., 9, Esplanade Row, Calcutta.—Smith and Wellstood's Patent and Registered American Cooking Stoves ; Portable Kitchen Ranges ; Church, Hall, Parlour, Tent and Laundry Stoves ; Ships' Galley Ranges and Yacht Stoves.

Thomson (T. E.) & Co., Esplanade Row, Calcutta.—*A Collective Exhibit of* Wire Mattresses and Reed Bed and Mattress ; Aviary, Canary, and Parrot cages ; Dog collars.

Turner (S. F.) Sons, Dudley, Worcestershire.—Galvanized buckets ; scoops ; pans, etc., and bedsteads.

Warner and Ramm Silk Damask Manufacturers, 9 Newgate Streets. London, E.C.—Silk Damask, Satins, and Damasquette ; Genoa Velvets ; Coletines, Poplins and Cordinettes. Tapestries and rich Furniture Silks. Represented by C. Lazarus and Co., Calcutta.

Walton (Fredk.) and Co., Ld., *Agents, C. Lazarus & Co.*—Lincrusta-Walton, the "Sunbury Wall Decoration." Patentees and Sole Manufacturers, Fredk. Walton & Co., Limited, Sunbury-on-Thames, Middlesex ; 9, Berners Street, Oxford Street, London ; Crystal Palace, Sydenham.

LINCRUSTA-WALTON, the Sunbury Wall Decoration. An Artistic Decorative Material, suitable for Private Houses, Hotels, Town Halls, Churches and other Public Buildings. It can be hung in the Self-Colours, or Decorated to suit the requirements of the user. It is damp proof, and can be scrubbed with soap and water. Its durability is such that it can be fixed on outside walls. It is suitable for the ornamentation of Furniture and other Decorative purposes. It is specially suitable for India, being impervious to the attack of the white ant The following examples are exhibited :—

1. Examples of Drawing-room, Dining-room, Hall, Staircase, and Ceiling Decoration in Lincrusta-Walton.
2. Wood Mantels and Over-mantels ornamented with Lincrusta-Walton.
3. Doors and Frames ornamented with Lincrusta-Walton, Panels, Mouldings, and Finger-plates.
4. Lincrusta-Walton Fancy Screens, Hand-painted or in Self-colours, ready for ladies to paint.
5. Lincrusta-Walton Splash Screens for wash-stands.
6. Lincrusta-Walton Dinner Mats.
7. Lincrusta—Walton Toilet and Table Malts.
8. Lincrusta-Walton Finger-plates.
9. Lincrusta-Walton Dado Rails.

Lincrusta-Walton has been awarded nine prize medals.

Warner (J.) Son, Crescent Foundry, Cripplegate, London.—Copper baths and Copper cooking utensils.

Wilson Engineering Co.—Stoves, etc.

Section E.

FABRICS, INCLUDING APPAREL, TOILET REQUISITES AND OTHER OBJECTS OF PERSONAL WEAR OR USE.

(*CLASSES* 38 *to* 52.)

Anderson, Abbott & Anderson, 37, Queen Victoria Street, London; Works: Limehouse, London. — India Rubber Waterproof Goods.

Bradford Chamber of Commerce, Exchange, Bradford (Agents at the Exhibition: Balmer, Lawrie and Co., 5, Clive Street, Calcutta).—Collective Exhibit of Silks; Plushes; Velvets; Gros Grain; Sewing and Knitting Silk Threads; Woollen and Worsted Textiles; Tapestries; Blankets; Rugs, &c.

Brown (J. H.) & Co., Ettrick Mills, Selkirk, Scotland. — Fancy Woollen Tweeds.

Carlisle, Douglas & Co., Museum Street, Manchester. — Fine Muslins.

Christy (W. M.) & Sons, Limited, Fairfield Mills, Manchester.—Royal Turkish Towels; Broché and Damask Terry Towels; Tennis Terry; Terry Bath Blankets; Honeycomb Huckaback, and all kinds of Fancy Towels.

(*See Descriptive Notice.*)

Crewdson, Crosses & Co., Limited, 40, Portland Street, Manchester; 10, Lawrence Lane, London; 77, Queen Street, Glasgow. Mills: Bolton and Farnworth.—White Calicoes, comprising Heavy Mediums, Double Warps, Long Cloths, Stout Shirt Cloths, and Twills; and the S 20 Range, specially manufactured for the Colonies and Export.

The Goods exhibited by Messrs. Crewdson, Crosses & Co., Limited, have had the highest reputation both in the Home Trade and abroad for upwards of fifty years. They are always stamped with the

REGISTERED TRADE MARK,

CREWDSON & COMPY. MANUFACTURERS.

Messrs. Crewdson & Co. received AWARDS AND PRIZE MEDALS at the following International Exhibitions.

London Exhibition, 1862;
Paris Universal Exhibition, 1867;
South African International Exhibition (Cape Town), 1877;
Paris Universal Exhibition, 1878;
Sydney Exhibition, 1879;
Melbourne Exhibition, 1880;
Adelaide Exhibition, 1881;
New Zealand Exhibition, 1882.

Dean (R. H.) & Co., Nottingham. —Lace Manufactures, &c.

(*See Descriptive Notice.*)

Dunkerley (Joseph) & Son, Royal George Mill, Macclesfield (Agents at the Exhibition: Maynard, Harris and Co.).—Silks.

Eccles (Joseph) & Co., Steam Mill, Fylde Road, Preston.—Leno Gauze; Leno Muslins; Leno Scarves; Checked Muslins.

Ferguson Brothers, Holme Head Works, near Carlisle.—Dyed Silesias; Pocketings; Satteens (dyed and printed); Silk Striped Satteens, &c., for Tailors' Linings; Pure Domestics and Shirtings.

(*See Descriptive Notice.*)

Gunnis (G. P.) & Co., 33, Chorlton Street, Manchester. — Plain White Cotton Piece Goods.

Hartley Bros., Shelley Road Mills, Preston. — Lenos; Dhooties; and other Fancy Cotton Goods.

Christy (W. M.) & Sons, Limited, Fairfield Mills, Manchester.—Royal Turkish Towels; Broché and Damask Terry Towels; Tennis Terry; Terry Bath Blankets; Honeycomb, Huckaback, and all kinds of Fancy Towels.

The production of ornamented Broché and Damask Terry Towels and ornamented household requisites is carried on exclusively by Messrs. Christy at the Fairfield Mills.

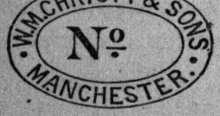
By contrast of colour in the Terry Towel, a variety of design is produced on both sides. This effect is due to the skilful treatment of the material and might almost be regarded as a work of art, tending to place the manufacture in a higher category than simple mechanical weaving.

Prior to the introduction of the process now employed for articles such as Turkish Bath Blankets, the goods left the loom in a crude and self-coloured condition, but now, by the introduction of pleasure of elegant bordering, a perfect and elaborate finish is obtained.

The special feature of the Broché Towel is the figuring of the material by various devices in a pure white Terry fabric. The raised pattern is not embossed or impressed on the fabric, but woven; hence its peculiarly valuable properties, beauty and strength.

The Company's Warehouses are extensive and well arranged for business. As the manufactured goods are liable to depreciation if soiled, they are carefully preserved from dust, and kept fresh and clean. In the taking-in and examining rooms, the work is so arranged that the goods undergo two, and sometimes more, examinations. By this system faults in the make, overlooked at one inspection, are detected in another.

Prior to the articles made at the Fairfield Mills leaving the works, they are stamped with the Company's trade-mark



and the "Royal Turkish Towels" wrapped in bands. This precaution has become absolutely necessary in order to protect purchasers and users of Turkish Towels throughout the world against spurious imitations. The extent to which this imitation has been carried on has justified Messrs. Christy and Sons in using all legitimate means to guard the public against buying inferior makes under the belief that they were manufactured by the Fairfield Company. The imitators have been so unscrupulous in copying not only stamps and bands but trade marks, that it has been found necessary in some cases to call them to order by the power of the law.

Messrs. W. M. Christy and Sons have taken every possible means to inform the public that no Turkish Towel or Bath Blanket is genuine unless it bears the name of their Company.

At the Great Exhibitions in London, 1851 and 1862, and at Paris in 1855, 1867 and 1878, prize medals were awarded in respect of the goods exhibited by the firm.

Dean (R. H.) & Co., Nottingham. —Lace Manufactures, &c.

The exhibits of this firm include:—

FANCY COTTON LACES—White, Cream, and Black;

HEAVY COTTON LACES—Russian, Brabant, &c.;

ANTIQUE LACES—White, Cream, Black, and Ficelle;

CROCHET AND EVERLASTING EDGINGS;

SILK AND COTTON SPANISH LACES—White, Cream, and Black;

SCARF LACES—White, Cream, and Black;

SILK AND COTTON LACE FICHUS—White, Cream, and Black;

SILK AND COTTON SCARFS—White, Cream, and Black;

PLAIN NETS—Silk and Cotton;

FIGURED NETS;

SPOT NETS;

SILK MECHLINS AND ILLUSIONS;

CHENILLE NETS;

FIGURED NETS FOR VEILS;

LACE CURTAINS; CURTAIN NETS, LAMBREQUINS, VITRAGES, AND WINDOW BLINDS;

ANTIMACASSARS;

FRILLINGS AND RUCHINGS—in Lisse, Muslin, Tarlatan, and Lace;

MADE-UP GOODS—Mob Caps, Lace Collarettes, Tier Capes, &c.

Ferguson Brothers, Holme Head Works, near Carlisle.—Dyed Silesias; Pocketings; Satteens (dyed and printed); Silk Striped Satteens, &c., for Tailors' Linings; Pure Domestics and Shirtings.

(*See Descriptive Notice.*)

Haslam (John) & Co., Limited, Fountain Street, Manchester. — Bleached Calicoes, including Long Cloths (both fine and heavy makes), Shirtings, Mediums, Double Warps, Twills, Sheetings, &c.

(*See Descriptive Notice.*)

Hooper (Charles) & Co., Eastington Mills, Stonehouse, Gloucestershire.—Superfine Woollen Cloth.

Horrockses, Miller & Co., Factories, Preston; Warehouses, 55, Piccadilly, Manchester; and 9, Bread Street, London. — Fine and Stout White Cotton Long Cloths; Cambrics; Twilled Shirtings; Plain and Twilled Sheetings.

(*See Descriptive Notice.*)

Ferguson Brothers, Holme Head Works, near Carlisle.—Dyed Silesias; Pocketings; Satteens (dyed and printed); Silk Striped Satteens, &c., for Tailors' Linings; Pure Domestics and Shirtings.

All the processes of spinning, weaving, bleaching, dyeing, and finishing, being carried on at their works, the Exhibitors are enabled to guarantee excellence of quality in the goods manufactured by them.

Only upon four previous occasions have Messrs. Ferguson Bros. taken part in an International Exhibition. The results, however, have been very satisfactory, as the following List of Awards will show:—

PHILADELPHIA, 1876, MEDAL WITH SPECIAL CERTIFICATE.

PARIS, 1878, SILVER MEDAL (HIGHEST AWARDED).

SYDNEY, 1879, GOLD MEDAL.

MELBOURNE, 1880, GOLD MEDAL.

Haslam (John) & Co., Limited, Fountain Street, Manchester. — Bleached Calicoes, including Long Cloths (both fine and heavy makes), Shirtings, Mediums, Double Warps, Twills, Sheetings, &c.

This Company obtained a Gold Medal and First Award for Cotton Dress Goods at Melbourne in 1880.

Possessing machinery of the most modern construction, and being extensive Cotton Spinners for the home and foreign markets, they are enabled to make goods of very superior and uniform quality.

The manufactures, as exhibited, are particularly adapted for the underclothing of both sexes. With regard to these, *The Queen*, the favourite fashionable ladies' journal in the United Kingdom, recently observed:—

"Those who affect fine underwear will find the Longcloths, 36 inches wide, a soft yet substantial cloth, and the Twills are equally to be recommended for their excellent finish and absence of all dress;" and further expressed the opinion that so long as home manufactures are equal in quality, colouring, and design to those of Messrs. Haslam, they will bear any comparison with French and German manufactures, and English men and women may buy them without making the smallest sacrifice to patriotism.

The Court Circular has also noticed the muslins and other goods manufactured by the Company, specially recommending the Longcloths, as being perfectly pure and adapted for household purposes.

The Warehouseman and Draper's Trade Journal strongly recommends the medium numbers, as being used by the best shirt makers, and the finer numbers as specially adapted for ladies' wear.

Messrs. Haslam have been established nearly three-quarters of a century.

The Firm's addresses are:—
Fountain Street, Manchester.
7, Watling Street, London, E.C.
20, Rue St. Fiacre, Paris.
76, Franklin Street, New York, U.S.A.
Halliwell Cotton Works, Derby Street Mills, Lark Hill, } Bolton.

Hunt & Winterbotham.—Cloths; Coatings; Billiard Flannel, &c.

Johnson (Jabez), Son, Allsop & Co., Moor Mills, Bolton; 44, Spring Gardens, Manchester; 10, Milk Street, Cheapside, London; Royal Exchange Court, Queen Street, Glasgow.—Quilts; Alhambras; Cotton Blankets; Toilet, Honeycomb and Damask Covers; Turkish, Honeycomb, and Fancy Towels; White, Coloured, and Raised Quiltings; Damasks, &c.

Hoyle (Joshua) & Sons, Limited, 41, Mosley Street, Manchester.—Mexican T Cloths; Scoured Grey Calico; Fine White Twills; Fine White Shirtings.

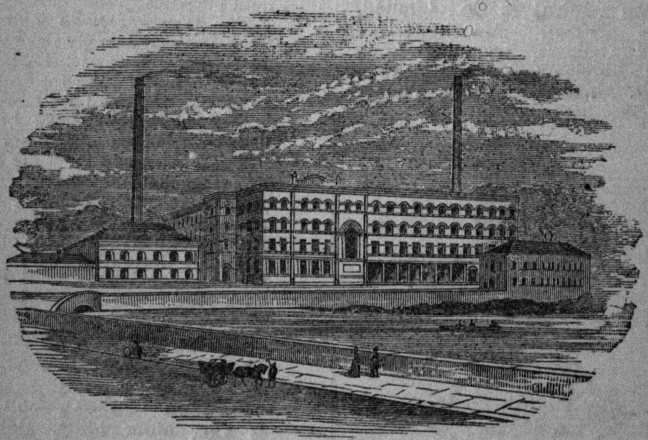
TRADE MARK.

Messrs. Joshua Hoyle and Sons, Limited, spin and weave their own Yarns, so that regularity and evenness of quality are secured more certainly than where the processes are divided between two establishments.

Their goods are specially made for family and domestic use, and any test, however severe, is invited.

The manufactures of the Company include :—

GREY DOMESTICS;
MEXICAN T CLOTHS;
SCOURED GREY CALICOES;
GREY AND WHITE TWILLS;
STOUT SHIRT CLOTHS;
HEAVY MEDIUMS;
DOUBLE WARPS;
GREY AND WHITE 72-INCH, 80-INCH, 90-INCH, AND 100-INCH SHEETINGS, TWILLED AND PLAIN.



TRADE MARK.

The Company's Mills are :—

PLANTATION MILL, BACUP;
INDIA MILLS, BACUP;
BEECH MILL, BACUP;
BROOKSBOTTOMS MILLS, SUMMERSEAT;
FREEHOLDS MILL, SHAWFORTH.

OFFICE: 41, MOSLEY STREET, MANCHESTER.

Horrockses, Miller & Co., Factories, Preston ; Warehouses, 55, Piccadilly, Manchester; and 9, Bread Street, London. — Fine and Stout White Cotton Long Cloths ; Cambrics ; Twilled Shirtings ; Plain and Twilled Sheetings.

The Goods exhibited have not been specially made for this occasion, but have been selected from the ordinary productions of the Firm, all the recent improvements in machinery having been adopted.

The Manufactures of the Firm have been held in high repute at home and in India for upwards of eighty years. They are of every variety and suited to all requirements.

All goods are stamped on the face and the inner end of each piece with the words "HORROCKSES, MILLER & CO.'S MANUFACTURE."

Messrs. Horrockses, Miller & Co. have obtained the following awards in previous International Exhibitions, viz. :—

LONDON,	1851 ...	PRIZE MEDAL.
,,	1862 ...	,, ,,
PARIS,	1867 ...	GOLD MEDAL.
,,	1878 ...	,, ,,

VIENNA, 1873, DIPLOMA OF HONOUR.
CAPE TOWN, 1877, GOLD MEDAL.

All communications should be addressed to Messrs. Horrockses, Miller & Co., 9, Bread Street, London, or to their Agents, Messrs. Andrew Yule & Co., Calcutta.

Langworthy Bros. & Co., 12, Charlotte Street, Manchester ; Greengate Mills, Salford ; and 1, Old Change, London. — Cords ; Moles ; Velveteens ; Drills ; Twills ; Regattas ; Ticks ; Nankeens, &c.

Lecky (F. B.) & Co., 56, Aldermanbury, London.—Irish Linens.

Nordlinger (S. & C.), 44, Sackville Street, Manchester. — Printed Cretonnes (Furniture Prints).
(*See Descriptive Notice in Section D.*)

Rose (A.) (per Eyre & Spottiswoode, London).—Hosiery.
These goods are specially manufactured for the Indian market.

Shatwell (H.) & Co., King Edward Street Mill, Macclesfield. — Silk Manufactures ; Sarsnets, &c.

Rossendale Printing Company, 33, George Street, Manchester : Works ; Love Clough, Rossendale.—Printed Cottons.

TRADE MARK.

This Collection comprises Cretonnes, Furnitures, Dress Goods, and Printed Cottons suitable for India.

The Firm has been established upwards of 80 years.

Swainson, Birley & Co., Fishwick Mills, Preston ; 27, Portland Street, Manchester ; and 5, Goldsmith Street, London.—Long Cloths, Mediums, Twills, Plain and Fancy Muslins, Satteens, Matelasses, Drills, Angolas, &c.
(*See Descriptive Notice.*)

Tootal Broadhurst, Lee & Co., 56, Mosley Street, Manchester ; Mills : Rumworth, Bolton, Black Lane, and Newton Heath, Lancashire.—Cotton, Silk, and Wool Manufactures.
(*See Descriptive Notice.*)

Ward (Anthony) & Co., Albion Mills, Leek, Staffordshire.—Silk and Mohair Braids.
(*See also Section F.*)

Whitehead & Sandbach, 113, Portland Street, Manchester.—Plain and Fancy Cotton and Union Goods.

Swainson, Birley & Co., Fishwick Mills, Preston; 27, Portland Street, Manchester; and 5, Goldsmith Street, London.—Long Cloths, Mediums, Twills, Plain and Fancy Muslins, Satteens, Matelasses, Drills, Angolas, &c.

TRADE MARK.

This exhibit comprises Cloths made by the Firm, suited to the various tastes and inclinations of the wearer; the Long Cloths being highly recommended for underclothing of every description, and the lighter materials for garments as worn by ladies in England or abroad.

It is almost impossible to enumerate here the various qualities of manufacture or the numberless designs made by this Firm, as they embrace Cloths of heavy make, together with figured Muslins and Satteens of the finest and choicest materials and varied patterns.

The Fishwick Mills date from the early part of this century, and are replete with machinery of the most modern construction with every recent improvement.

During the last Twenty years Messrs. Swainson, Birley & Co. have received PRIZE MEDALS AT THE INTERNATIONAL EXHIBITIONS OF LONDON, PARIS, MELBOURNE, MOSCOW AND SYDNEY.

Tootal Broadhurst, Lee & Co., 56, Mosley Street, Manchester; Mills: Rumworth, Bolton, Black Lane, and Newton Heath, Lancashire.—Cotton, Silk, and Wool Manufactures.

RD. No. 26890.

Messrs. Tootal Broadhurst, Lee & Co., who are Cotton, Silk, and Wool Spinners and Manufacturers, Calico Printers, and Merchants, have been established upwards of eighty years.

The business of the Firm is carried on at the following addresses:—

56, Mosley Street, Manchester.
Ten Acres Mill, Manchester.
Black Lane Mills, Radcliffe.
Sunnyside Mills, Bolton.
24, Well Street, Bradford.
3, Linen Hall Street, Belfast.
42, Rue des Jeuneurs, Paris.
28, Friday Street, and 48, Gresham Street, London.

Aaron, Sons & Co., 18, Jewin Street, Aldersgate Street, London.—Umbrellas; Parasols; Walking Sticks.

Barker (J. D.), 80, Great Clyde Street, and 85, Fox Street, Glasgow.—Umbrellas, suitable for tropical climates.

Benton & Johnson, 63, King's Cross Road, London.—Gold Thread, Wire, and Lace.

Ellwood (John) & Sons, 24, Great Charlotte Street, Blackfriars Road, London.—Hats, Caps, and Helmets, specially adapted for the climate of India.

TRADE MARK.

The specimens shown are chiefly constructed on the "AIR CHAMBER" principle, introduced many years ago by the Exhibitors, and universally known under their name. This principle, being the fundamental one for all head coverings suitable for the tropics, any wide departure from what has already been done is of necessity precluded; but several novelties and improvements are here shown, to which attention is particularly directed.

Messrs. Ellwood's manufactures can be obtained through all the principal dealers in hats in Calcutta and the chief towns of India.

Flatau (A. & W.) & Co., Ropemaker Street, Finsbury, London; and Victoria Road, Northampton.—Boots and Shoes.

The Exhibitors are manufacturers of Gentlemen's, Ladies' and Children's Boots and Shoes of every description for the Indian markets. Special attention is requested to the Dual Spring Boot just patented by Messrs. Flatau, and claimed by them to be one of the most useful inventions of the day.

Orders can be forwarded through Messrs. J. S. Elmore and Co., Calcutta, or any English house.

Prize Medals have been obtained by the Firm on every occasion of their Exhibiting; the more recent awards being: Paris, 1878; Sydney, 1878-79; Melbourne, 1879-80; Cape Town, 1877.

Harris (Henry), 56, St. Michael's Road, Northampton. — Boots and Shoes.

TRADE

MARK.

Ladies and Gentlemen's Boots and Shoes bearing the above Registered Trade Mark, or the name in full, "Henry Harris, Northampton," have for many years been known in the Indian Markets.

The Exhibitor is the inventor and patentee of the Solid Leather Lawn Tennis Shoe, highly recommended for its durability, flexibility, and freedom from the offensive smell given off by shoes with soles of India Rubber and other sulphurous compounds. He is also manufacturer of the Boots and Shoes made with the Patented Riveted Seams by means of which great strength is secured.

Orders can be forwarded through any Calcutta house having correspondents in England.

Kenning (George), 1, 2, 3, 4, Little Britain; 195, 196 & 197, Aldersgate Street, London. Branch Establishments: Manchester, Liverpool, and Glasgow.

(*See Descriptive Notice.*)

Kirby, Beard & Co., 115, Newgate Street, London; and Birmingham.—Pins; Needles; Hair Pins; Safety Pins.

(*See also Section K.*)

Kenning (George), 1, 2, 3, 4, Little Britain; 195, 196 & 197, Aldersgate street, London. Branch Establishments: Manchester, Liverpool, and Glasgow.

This Exhibit includes:—

Gold and Silver Laces;

Fringes, Braids, Tassels, and Embroidery in Gold, Silver, Silk, and Worsted;

Accoutrements for the Army, Navy, Volunteers, Yeomanry, and Civil Services;

Helmets, Caps, Cocked Hats, Turbans;

Swords, Buttons, Belts;

Sabretaches, Saddles, Saddle Cloths;

Sashes, Laces, Badges, Braids;

Embroidery and Trimmings of all kinds for Uniforms.

Mr. Kenning's Establishment is one of the largest in the City of London. The factory is fitted up with the most modern machinery, steam power, and all the latest improvements.

The Exhibit also includes:—

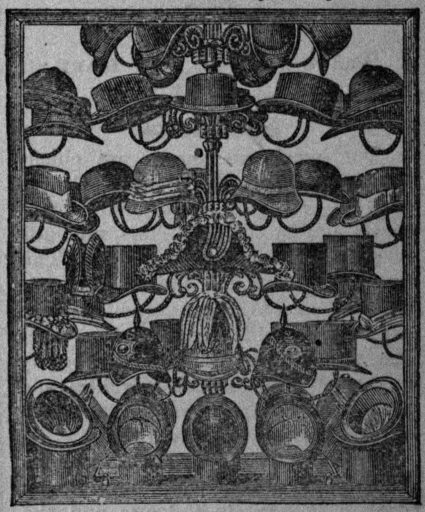
Insignia for the Society of Freemasons (Jewels, Aprons, Banners, Sashes), Furniture and every Requisite for Freemasons' Craft Lodges, Royal Arch Chapters, Mark Lodges, Rose Croix Chapters, Knights Templars' Preceptories, Red Cross Conclaves, &c.

The Exhibitor (Bro. Kenning) is Proprietor of the *Freemason* Newspaper, well known throughout the world; also of the *Cosmopolitan Masonic Pocket Book* (used by nearly all Freemasons). These, as well as all other kinds of work, are printed by steam power at his Printing and Publishing Establishment, opposite Freemasons' Hall, London, where are also carried on extensive operations in connection with Die Sinking, Vellum Illuminating, Seal Engraving, Account Book Manufacture, Paper, Envelopes, and everything relating to Stationery.

Lincoln, Bennett & Co., 1, 2 and 3, Sackville Street; and 40, Piccadilly, London (Hatters to T.R.H. the Prince and Princess of Wales).—Hats and Helmets in variety.

This Collection includes:—

Silk Velvet Napped Hats;
Satin and Merino Opera Hats;
Superfine Felt Hats, flexible and stiff, in variety;
Terai Double Hats;
Diplomatic Full Dress Cocked Hat;
Military Helmets, Indian Regulation; Military Caps;
C. S. Helmet for India;
Ladies' Silk Velvet Napped Hats;
Ladies' Felt Hats, plain and trimmed;
Ladies' Terai Double Hat;
Indian Turbans—
H.H. The Nizam of Hyderabad.
H.H. The Maharajah of Johore.



The Specimens shown are exhibited for excellence of Manufacture in every detail, superior quality of the Fabrics and Materials used, and for extreme durability.

The following Awards have been obtained by the Firm:—Prize Medal and Diploma, Philadelphia, 1876; Gold Medal and Diploma, Paris, 1878; "Special Medal" and Two First Awards, Sydney, 1879; Gold Medal and Highest Award, Melbourne, 1880.

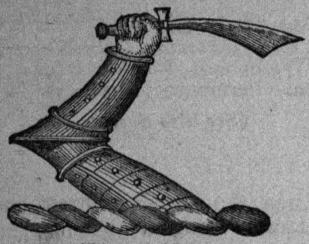
Manufactory and Shipping Department—23, 24 and 25, Nelson Square, and 19 and 20, Charlotte Street, Blackfriars Road, London.

Marshall (Thomas D.) & Burt, 444, Oxford Street, London (Agents for the Exhibition: Maynard, Harris & Co.).—Boots and Shoes.

Maynard, Harris & Co., 126 and 127, Leadenhall Street, London.—"Everclean" Collars and Cuffs. Military Accoutrements.

(*See also Section G.*)

Milward (Henry) & Sons, Washford Mills, Redditch.—Needles; Machine Needles.



TRADE MARK.

Needle making is one of the most important of English industries, and is almost exclusively confined to Redditch, near Birmingham. Amongst the comparatively few houses whose operations are on a scale of real magnitude, the Exhibitors take high rank by reason of their business having been carried on since the year 1730—more than a century and a half—by successive generations of the same family.

In the manufacture of their Needles, Messrs. Henry Milward & Sons use the finest brands of cast steel supplied by Messrs. Jessop & Sons, of Sheffield.

Eleven first-class prize medals have been awarded to the firm.

No agents are employed in India by Messrs. Milward, but goods of their manufacture may be obtained from any of the English houses in Calcutta or Bombay, and throughout the country.

The several branches of the Firm are at 400, Broadway, New York (Messrs. George A. Clark & Co.); 65, Boulevard Sebastopol, Paris; and 8, Gresham Street, London.

(*See also Section K.*)

Randall (H. E.), Northampton (Agents at the Exhibition: Ledger, Smith & Co.).—Boots and Shoes; Tennis Sole.

Simpson & Rook, 9 and 10, Little Britain, London (Agent: J. Crowder).—Military Accoutrements; Gold Laces and Embroideries.

The materials used in the manufacture of the Lace and Embroidery, as exhibited, and usually kept in stock, are fire gilt and composed of 91 per cent. of pure silver. Other and lower qualities the Exhibitors undertake to supply if required.

The manufactures of the Firm include:—

GOLD AND SILVER LACES, BRAIDS, CORDS, THREAD AND WIRE;

GOLD AND SILVER EMBROIDERIES (Diplomatic, Naval, Military, and Art);

FORAGE CAPS;

HELMETS FOR HOME AND FOREIGN SERVICE;

COCKED HATS AND PLUMES;

NAVAL, MILITARY, AND VOLUNTEER ACCOUTREMENTS;

SWORDS, DIRKS, SADDLE CLOTHS;

BUTTONS, COCKADES.

Sinclair (Robert) & Co., 86, Wood Street, London. Manufactory: Londonderry (Agents at the Exhibition: Ledger, Smith & Co.).—Shirts.

Tress & Co., 3, Stamford Street, London.—Tropical Hats and Helmets; Silk Felt Hats.

Turner (R.) & Sons, Old Factory, Redditch.—Pins; Brass and Steel Needles; G. Chambers and Co.'s Patent Needles.

(*See also Section K.*)

Watson (Dr. J. Forbes), 21, Lime Street Chambers, London.—Helmets and other Covers, specially adapted for the protection of the head from the sun and heat in hot climates. (Manufactured by Christy and Co., London.)

Culver (Edward), Spencer Works, Clerkenwell Road, London (Agents at the Exhibition: Ledger, Smith & Co.).—Jewellery; Precious Stones.

Gowland Bros., 48, Cornhill, London (Agents for the Exhibition: Maynard, Harris and Co.).–Jewellery.

Francati & Santamaria, 65, Hatton Garden, London.—Cameos; Mosaics; Corals; Lava Goods; Jewellery.

Henry (Richard L.), 11, Hatton Garden, London. — Diamond and Gem Jewellery.

The articles exhibited are shown as specimens of ordinary jewellery, and not as large and special gems. The prices at which they are offered place them within the reach of all classes desirous of gratifying artistic tastes.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Joseph (B. H.) & Co., Frederic Street, Birmingham. — Gold and Silver Jewellery.

The articles included in this collection are suited to the Indian market. They are of artistic design, well made, and moderate in price.

The Sole Export Agents are Messrs. Eyre and Spottiswoode, of London.

Levetus Bros., Canada Works, Vittoria Street, Birmingham.—Gold Plated Chains, Seals, and Lockets.

Saunders & Shepherd, 25, Bartlett's Buildings, Holborn, London (Agents for the Exhibition; Ledger, Smith and Co.).—Enamelled Jewellery, &c.

Wilkinson & Son, 1 and 2, Skinner Street, Clerkenwell, London.—Gold Rings.

Atkinson (J. & E.), 24, Old Bond Street, London.—Eau de Cologne; Lavender Waters; Essences and all kinds of Perfumes for the Handkerchief and Toilet; Pomatums; Hair Washes; Toilet Soaps; Toilet Powders; Dentifrices; Toilet Waters; Cosmetics and General Toilet Requisites.

Hockin, Wilson & Co., 38, Duke Street, Manchester Square, London.—Violet Powder; Poudre de Riz; Fancy Soaps, &c.

In addition to the articles above mentioned Messrs. Hockin, Wilson & Co. are manufacturers of Seidlitz Powders, Marking Ink, and other Chemicals.

(*See also Sections B., C. & F.*)

Langdale (E. F.) (Price & Co.), 72 and 73, Hatton Garden; and No. 1 Warehouse, London Docks, London.—Perfumery; Essences.

(*See also Section C.*)

Luce (G.), 44, King Street, Jersey.—Eau de Cologne.

Richardson (John) & Co., 20—23, Artillery Lane, Bishopsgate Street, London.—Fancy Toilet Soaps and Perfumery.

Large quantities of inferior Perfumery are now being sold. Its use has a very injurious effect upon the skin and the general health. The Exhibitors manufacture articles of the best quality only, believing that where known they will be properly appreciated. Of these the Eau de Toilette, amongst the most important, possesses many valuable properties. When used alone and applied by friction it removes rheumatism; when inhaled or applied to the temples it will calm headache. A small quantity applied with a warm hand to the face will remove all tendency to inflammation of the eyes. In cases of burns or contusions its use will prevent tumefaction. In the Colonies it is recognised and largely used as a prophylactic. Its less important powers are shown in the removing of pimples, the imparting of a healthy tone to the skin, and the rendering agreeable, by its aromatic odour, the atmosphere in dwellings.

Rimmel (Eugene), 96, Strand, London.—Perfumery; Toilet Soaps; Aromatic Disinfectants.

Stewart (S. R.) & Co., Aberdeen Comb Works, Aberdeen.—Combs and other Horn and Tortoiseshell Manufactures.

(*See Descriptive Notice.*)

Stewart (S. R.) and Co., Aberdeen Comb Works, Aberdeen.—Combs and other Horn and Tortoiseshell Manufactures.

REGISTERED **TRADE MARK.**

This Collection includes:—

Ladies' Combs, exhibited for elegance of style and stain, combined with cheapness;

Pure White, Buffalo, and Stained Dressing Combs;

Real Tortoiseshell Combs;

Patent Tortoiseshell Union Combs.

In Messrs. Stewart's factory the raw material annually consumed averages 3,500,000 horns, about 1,000,000 hoofs, nearly 600 lb. of tortoiseshell, and 20 tons of vulcanite, out of which more than 10,000,000 combs are manufactured.

Two distinct processes of tooth-cutting are followed in the manufacture of ordinary dressing-combs. The first method, which is applied to all fine combs, consists in cutting out the teeth by means of circular saws; and this is the only process applicable to the preparation of small-toothed combs, and all combs made of ivory and boxwood. Saw-cutting is, moreover, the only process formerly adopted, but instead of a circular saw, the comb-maker used a gauged hand-saw, called a *stadda* or *steady*. The saws now employed are of small diameter; and, according to the work they have to perform, they are fine-toothed and thin, some of them being constructed to cut 70 to 80 teeth per lineal inch. The saws are mounted on a spindle which revolves with great rapidity, and the plate or plates of horn to be toothed are clamped up in a holder, which by a cam motion, is alternately raised and depressed, bringing the horn each time against the saw, which cuts out one tooth to its full depth. After each cut, an automatic arrangement moves the horn forward the breadth of a tooth, the gearing being so mounted that the teeth may be cut fine or coarse at pleasure. The second method of cutting the teeth is known as twinning, from the fact that a pair of combs are cut out of a single plate. The process of twinning consists in so cutting a plate of horn that the whole material is utilised, what is removed to form the teeth of one comb being exactly sufficient for the teeth of a corresponding opposite comb.

In order to economise tortoiseshell, and to obtain large and thick combs out of the comparatively small and thin plates in which that substance usually occurs, a process of cementing or soldering is resorted to. The joining of two plates of tortoiseshell is very perfectly accomplished by first carefully scraping and cleaning the surfaces to be united. They are then applied to each other, heated, and strongly pressed between pincers,—this being sufficient to cause a perfect amalgamation of the two surfaces. After cementation, tortoiseshell is treated in every respect as a piece of fine white or buffalo horn.

The Exhibitors, who are manufacturers of all kinds of Combs, Drinking Cups, Paper Cutters, Spoons, Shoe Horns, and all other goods of Horn and Tortoiseshell, were awarded:—

The ONLY MEDAL for Real and Imitation Ladies' Tortoiseshell Head-dress Combs at the *London Exhibition*, 1862;

The ONLY MEDAL for Combs of every description at *Vienna*, 1873;

The ONLY MEDAL (Silver) granted to an English Manufacturer for Horn and Tortoiseshell Combs—and especially for Pure White, Stained, and Buffalo Dressing Combs—at *Paris*, 1878;

The ONLY FIRST AWARD at the *Sydney Exhibition*, for Combs and other Horn and Tortoiseshell Goods.

The ONLY FIRST PRIZE MEDALS at *Melbourne*, 1880, and *Adelaide*, 1881.

For many years Messrs. S. R Stewart and Co. have supplied almost all the Combs required by Her Majesty's War Department and the Admiralty.

Their Manufactory and principal Warehouse are Aberdeen Comb Works, Aberdeen, Scotland, and their Branches 126, Queen Victoria Street, London, and 14, Carr's Lane, Birmingham.

Prices and terms may be had upon application to the Manufacturers, as above, or of their Agents in the Exhibition Building.

British Xylonite Co., Limited, Dashwood House, New Broad Street, London.—Combs; Brushes, &c.

Eyre & Spottiswoode, London.—Leather and Cabinet Goods; Purses; Albums; Writing Desks; Dressing Cases; Work Boxes; Bags, &c.

These Goods are manufactured only from the finest materials and by the best workmen.

Farwig (J. F.) & Co., 26, Queen Street, Cannon Street, London.—Japanned Despatch, Deed, Uniform and Dress Boxes.

Fearncombe (H.) & Co., Phœnix Japan Works, Wolverhampton (Agents for the Exhibition: Ledger, Smith and Co.)—Travelling Trunks.

(*See also Section D.*)

Mappin & Webb, 2, Queen Victoria Street, London; and Norfolk Street, Sheffield.—Dressing Bags and Cases.

(*See also Section D.*)

Pound (John) & Co., 81, 82 and 83, Leadenhall Street, London.—Portmanteaus; Trunks; Bags; Dressing Bags; Dressing Cases.

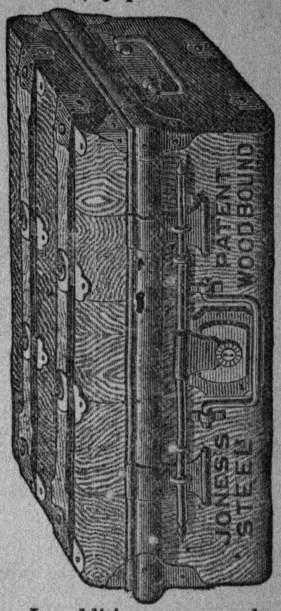
(*See also Section D.*)

Thornhill (W.) & Co., 144, New Bond Street, London.—Dressing Cases; Travelling Bags; Articles de Luxe; Diamanté Brilliants; Fine Cutlery.

Davidson (Thomas), Jun., & Co., Caledonia Pipe Works, Garngad Hill, Glasgow.—Clay Tobacco Pipes, Plain and Coloured.

Izod (Joseph), 20, Farringdon Road, London (Agents at the Exhibition; Ledger, Smith and Co.)—Meerschaum Pipes; Briar Wood Pipes.

Jones Brothers & Co., Ablow Street, Wolverhampton. Show Rooms: Devonshire Square, Bishopsgate Street, London.—Steel Travelling Boxes; Tinned and Enamelled Stamped Steel Hollow Ware; Tinned Wares; Japanned Wares.



The manufactures of this Firm include:—Patent Steel Wood Bound Overland Travelling Boxes, Berth and Mule Trunks, Despatch, Deed, Cash, Bonnet Boxes, &c.; Registered Folding Wash Stands, Tables, Toilet Sets.

In addition to every description of Tinned and Japanned goods, the Exhibitors also manufacture:—

Steel Seamless Hollow Ware, Tinned and Enamelled;
Baths—Hip, Sponge, and Travelling;
Papier Mache and Japan Tea Trays;
Dish Covers, Jelly Moulds;
Tea and Coffee Pots; Patent Kettles; Lamps & Lanterns;
Enamelled Dinner and Soup Plates; Basins; Pie Dishes;
Tea and Coffee Cups with Saucers; Candlesticks; Spittoons;
Enamelled Advertising Tablets, Street Plates, &c.

Price Lists and full particulars may be obtained in the Exhibition Building, at the office of Messrs. J. M. Johnson and Sons, Limited, of London.

Orders are executed through any British Merchants.

(*See also Section D.*)

Burgoyne (B.) Son, London.—Perfumery.

Firmin and Sons.—153 to 155 Strand, London.—Military Ornament and Accoutrements and Embroidery.

Gosnell (Jno.) and Sons, London.—Perfumery, Toilet Brushes and Brown Soaps.

Hunt & Winterbotham, Corn Mills, Dursley, Gloucestershire. *Represented by C. Lazarus & Co.*—Superfine Cloth Manufacturers; Worsted Oriental Cloths in all colors; Cricketting Flannel; Superfine Cloths and Doeskin; Military Cloths and Serges in all colors; Casrimeres and Kerseys; Billiard Cloth; Broad Cloth, Coatings and Hunting Cord.

Kenning (George), Little Briton, London.—Gold and Silver Lace and Masonic Ornaments.

Ker Dods and Co., Calcutta; Dods Ker and Co., Manchester.—Grey, White, Dyed, Printed and Fancy Cotton Good; Woollens; Unions and Silks, &c.

Lion (A. J.) and Co., London, Boot and Shoe Manufacturers.—Boots and shoes.

Miller (T. P.) a d Co.—Glasgow Turkish Red Yarn.

Montini (Antonio), Scarborough.—Coral Jewelry.

Webster (Francis) & Sons, Alma Works, Arbroath, Scotland; and 1, Castle Court, Lawrence Lane, London.—Sail Cloth; Canvas; Twines.

Section F.

RAW PRODUCTS AND MANUFACTURES FROM PRODUCTS NOT INCLUDED IN OTHER SECTIONS.

(*CLASSES* 53 *to* 81.)

Brecknell, Turner & Sons, Haymarket, London.—Saddle Soap; Skin Soap.

Bremner & Co., Bengal Works, Rotherhithe, London.—Crystal Gum; Mineral Glue.

Bruce Brothers & Co., Govan Oil Works, Govan, near Glasgow.—Oils; Greases.

Bush (W. J.) & Co., 20—23, Artillery Lane, Bishopsgate Street, London.—Essential Oils; Harmless Vegetable Colours for Confectionery; Chemicals.

The operation of distilling, by which the Essential Oils exhibited are produced, is carried on by Messrs. W. J. Bush & Co. These Oils include all that can be distilled in England. They are largely used in Perfumery and for colouring Confectionery.

The Harmless Vegetable Colours are produced in the dry form, the best for exportation, and in many shades. Since their introduction a few years since the deleterious compounds used by confectioners have fallen into comparative disuse

(*See also Section H.*)

Chiswick Soft Soap Company, Chiswick.—Soft Soap.

The packing of soft soap in tins for export receives the special attention of this Company, who guarantee their soap to be manufactured only from the purest oils.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents of the Company.

Crown Preserved Coal Company, Cardiff.—"Crown" Patent Fuel.

Dovenby Colliery Company, Cockermouth, Cumberland.—Cannel Coal.

Fleming (A. D.) & Co., Limited, 15, Whitefriars Street, London; and Caroline Park, Edinburgh.—Lubricating Oils.

(*See also Section B.*)

Field (J. C. & J.), Lambeth, London.—Patent Self-fitting Ozokerit, Spermaceti and other Candles; Beeswax; Toilet Soaps; Sealing Wax, &c.

(*See Descriptive Notice.*)

Hazlehurst & Sons, Camden Soap and Alkali Works, Runcorn.—Family and Domestic Soaps.

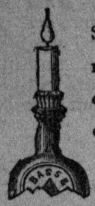
(*See Descriptive Notice.*)

Hemingway (S.) & Co., Trafalgar Street, Bradford.—New Dry Soap.

(*See Descriptive Notice.*)

Johnson Brothers, Cleveland Works, Hull; City Chambers, 65, Fenchurch Street, and 4, Railway Place, London.—Oils; Greases; Paints; Colours; Varnishes.

Field (J. C. & J.), Lambeth, London.—Patent Self-fitting Ozokerit, Spermaceti and other Candles; Beeswax; Toilet Soaps; Sealing Wax, &c.



THE "OZOKERIT" AND SPERMACETI CANDLES manufactured by this Firm are especially suitable for tropical climates.

FIELD'S PATENT SELF-FITTING ENDS will adapt themselves to every candlestick.

FIELD'S "UNITED SERVICE" SOAP TABLETS are unrivalled for perfume and permanence of lather.

THE PATENT-END AERATED CHAMBER CANDLES are made of the hardest Stearine, and tubulated throughout. They never smoke, bend, or gutter.

"LYCHNOPHYLAX," or CANDLE GUARD. This is an elegant and useful adjunct to a candle, which entirely obviates guttering.

The Firm of J. C. & J. Field is the *oldest in the world* engaged in the manufacture of Candles and Soap, and has obtained Prize Medals at all the principal Exhibitions, including London, 1851—1862. Paris, Moscow, Vienna, Philadelphia, &c.

Hazlehurst & Sons, Camden Soap and Alkali Works, Runcorn.—Family and Domestic Soaps.

The Exhibitors claim for these Soaps perfect purity and freedom from adulteration of any kind. They possess remarkable cleansing properties, and will neither injure the skin nor harm the most delicate fabrics. The greatest care is taken in making, and none but the best and sweetest materials are used. Manufacturing on an extensive scale, the Exhibitors, who ship largely to South Africa, China, &c., are able to offer the best possible value for money.

At the recent New Zealand Exhibition a Gold Medal was awarded to the Firm.

Hemingway (S.) & Co., Trafalgar Street, Bradford.—New Dry Soap.

The New Dry Soap, as now exhibited, has been strongly recommended on account of its labour-saving properties, and the excellent cleanliness and whiteness it imparts to linen. It is warranted free from any injurious ingredient. Besides high commendation from the press, the Exhibitors have received in respect of the Soap high awards at numerous International Exhibitions.

(*See also Section H.*)

Keeling (D. C.) & Co., Liverpool.—Soaps.

Messrs. Keeling and Co. are proprietors of the business formerly belonging to Messrs. W. Steele and Sons, whose productions are well known throughou India. The goods are cheap and of uniform quality.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents of the Exhibitors.

Price's Patent Candle Company, Limited, Battersea, London; and Bromborough Pool, Liverpool.—Candles; Night Lights; Glycerine; Soaps; Oils, &c.

The Works of Price's Patent Candle Co., Limited, are the largest in the world for the production of Candles and of articles connected with this manufacture. They consist of two Factories, one on the Thames at Battersea, and the other on the Mersey, near Liverpool, and together afford employment to about 1,400 persons.

PRICE'S COMPANY were the first to employ Palm Oil for the production of Candles. Their patented processes for rendering this oil, and other dark-coloured fats available for Candles have been the means of giving Hard White Stearine Candles to the public at less than half the price at which any such candles were previously sold.

The finest Stearine Candles exhibited are sold under the name of BELMONT SPERM or BEST STEARINE CANDLES, and have been well known for many years in India and all export markets. They are shown with plain ends, and also with self-fitting ends of an improved description.

PRICE'S GOLD MEDAL PALMITINE CANDLES, which combine extreme beauty of appearance, great light-giving power and slowness of consumption, with comparative freedom from liability to bend, are widely used in the Dining-rooms and Drawing-rooms of the wealthy.

PRICE'S COMPOSITE & COWSLIP WAX CANDLES are cheaper, and suitable for household purposes.

BELMONT SPERM SPIRAL CANDLES with self-fitting ends are also exhibited.

The DROPLESS CHAMBER CANDLES may be carried without dropping grease.

PRICE'S well-known CARRIAGE CANDLES are included in the collection.

Besides the Candles exhibited, a great variety for use in England and in other countries where the temperature is lower than in India, are manufactured by the Exhibitors.

NIGHT LIGHTS.—Next in importance to the Candles made by Price's Company are their Night Lights. Two kinds are in use in England, viz., Price's New Patent Night Lights, which are moulded like candles, and burned in neat little glass cups, and Childs' Night Lights which are contained in paper cases and are ready for burning when placed in a saucer containing a little water. The Night Lights exhibited are of the latter description, but specially manufactured for hot climates.

Specimens of REFINED GLYCERINE and of the Crude Material are shown.

In connection with the manufacture of Glycerine, Price's Company occupy a pre-eminent position. Nearly thirty years ago pure Glycerine was manufactured by the Company for the first time under Mr. G. F. Wilson's Patent, and this gentleman's discovery of the method of purification has given to Medicine and the Arts a material the value of which is yearly becoming better appreciated.

A few of the many TOILET SOAPS manufactured by the Exhibitors are represented in the case, viz.:—

PRICE'S SOLIDIFIED GLYCERINE SOAP, which contains half its weight of Glycerine, and is, therefore, admirably adapted for tender skins;

PRICE'S GLYCERINE AND CARBOLIC SOAP, combining the emollient properties of Glycerine with the disinfecting qualities of Carbolic Acid.

PRICE'S "THAMES AND MERSEY" Lubricating Oils are represented by the following:—

GAS ENGINE OIL, as adopted and recommended by Messrs. Crossley Bros., Limited, the well-known makers of the famous "Otto" Silent Gas Engine;

COMPOUND ENGINE OIL for Marine Engines and Locomotives.

SHERWOOD SPERM OIL for General Machinery;

CYLINDER OILS;

BELMONT SPINDLE OIL AND

RANGOON OIL, as recommended by the War Office Authorities "for the preservation of small arms, and articles made of metal, from oxidation."

Wilson (J. Veitch) & Co., Works and Head Office: 258—260, Dobbies Loan, Glasgow; Branches: Manchester, Dundee, and London.—Jute Batching Oil; Lubricating Oils for Steam Cylinders, Land and Marine Engines, General Machinery, Looms, Spindles, Gas and Hot Air Engines.

REGISTERED

TRADE MARK.

JUTE OIL.

After several years' study of the properties required in a perfect batching oil, and many failures in their attempts to produce such an article, the Exhibitors have succeeded, by a novel modification of the principles adopted by the most experienced and careful spinners in Dundee, in producing a batching oil possessing all the body and other valuable qualities of the purest whale or seal oil, whilst free from the objectionable properties of such oils, and costing only about half the average price of either.

Many of the most important spinners in Dundee have pronounced "Jute Oil" to be the "only perfect substitute for whale oil" presented to them.

It is regularly used by many firms there and elsewhere, and others have promised to adopt it when their current contracts expire.

CYLINDER OILS.

In the preparation of these oils the Exhibitors have had the valuable advice of Mr. E. R. Southby, M.R.C.S., F.C.S. of London, and Mr. R. R. Tatlock, F.R.S.E., F.C.S. of Glasgow, analytical chemists, and the co-operation and assistance of many practical engineers who felt the necessity for a good cylinder oil.

Hitherto, no account has been taken of the differences in the construction of engines, one oil being considered suitable for all. Yet lubrication cannot be satisfactorily attained unless provision be made for the peculiarities of the different types of engine now in use. The Exhibitors accordingly prepare special Oils for Horizontal and Vertical Cylinders, for Land and Marine Cylinders, and for large and small engines. As a result they have received from numerous customers assurances of the better lubrication and condition of their cylinders, and the saving of from 40 per cent. to 60 per cent. in cost since using these oils.

GENERAL LUBRICATING OILS.

Careful attention and consideration as regards size, weight, speed, and driving power have been exercised by the Exhibitors in the preparation of oil for every description of machinery. In their case will be found samples of oil adapted to every class and condition of machinery, from the finest spindle to the largest crank shaft.

The success that has attended them, whenever consulted as to the best means of lubricating troublesome bearings, or compensating for deficiency in driving power, the Exhibitors regard as the best proof of the soundness of the principles acted upon by them in the preparation of their Oils.

THE DISTINGUISHING PROPERTIES OF THE OILS OFFERED BY THIS FIRM ARE MAXIMUM EFFICIENCY AND DURABILITY, ABSOLUTE SAFETY, PERFECT FREEDOM FROM ACIDITY AND FROM TENDENCY TO GUM, WITH ECONOMY IN COST AND USE. The saving effected by their adoption, amounting in some instances to several hundreds of pounds per annum, has been testified by many important firms without solicitation.

Several pamphlets on the subject of lubricating oils have been published by the Firm, *inter alia*:—

"The Uses and Properties of Natural Lubricating Oils;"

"Notes upon the Oils required for various classes of Machinery;"

"The Lubrication of Steam Cylinders;" and

"The Lubrication of Bearings under Ordinary Atmospheric Conditions, and of Faces and Bearings subject to the Action of Steam and Heat" (Paper read by Mr. J. Veitch Wilson before the Society of Engineers' Foremen and Draughtsmen, at the Mechanics' Institution, Manchester, 31st March, 1883).

The Firm was established in 1 65.

Angus (Geo.) and Company, St. John's Works, Newcastle-upon-Tyne; Prince's Buildings, Liverpool; 13, Billiter Street, London; and Bute Docks, Cardiff.—Leather and India Rubber Goods, for Engineering, Mining, and Agricultural and general Machinery purposes.

The manufactures of this Firm include:—

OAK-TANNED LEATHER DRIVING BANDS;
PATENT LINK LEATHER DRIVING BANDS;
LEATHER HOSE,
FOR FIRE ENGINES AND OTHER PURPOSES;
SEAMLESS FLAX HOSE,
USEFUL FOR IRRIGATION PURPOSES;
GIN LEATHER, WALRUS AND HIPPO HIDES;
RUBBER SHEETS; WASHERS;
RAILWAY BUFFER SPRINGS;
RUBBER VALVES FOR LAND AND MARINE ENGINES;
VACUUM BRAKE HOSE FOR RAILWAYS;
DELIVERY AND SUCTION HOSE FOR AGRICULTURAL USE;
STEAM PACKINGS OF EVERY DESCRIPTION;
GAUGE GLASSES, &c.

Messrs. George Angus and Company are Contractors to the British Admiralty, as well as to the Home and Foreign and Colonial Governments.

Gandy (Maurice), 130, Queen Victoria Street, London; Works: Liverpool, and Baltimore (U. S. A.). — Cotton Belting (Patented in India).

In the manufacture of the "Gandy" Belting as exhibited, the best American Cotton Duck, specially hard woven for the purpose and stitched together, is employed. To prevent the Belts stretching, they are kept under strong tension during the whole process of manufacture, by special machinery invented and patented by Mr. Gandy for the purpose. "Gandy" Belting is less expensive than Leather, is much stronger, and has a much better grip on the pulley than either Leather or Rubber Belts. The breaking strain of the "Gandy" Belt is 6,811 lbs. per square inch of section, as against 3,572 lbs. per square inch of section for Leather of the best make.

At the Exhibitions held at Hamburg, Berlin, Sydney, Cincinnati, New York, Melbourne, Pittsburg, Atlanta, New Zealand, Falmouth, Tynemouth, and Chicago, Prizes were awarded to the "Gandy" Belting.

Hepburn & Gale, 239, Long Lane, Southwark, London (Agents for the Exhibition: Ahmuty and Co., Church Lane, Calcutta).— Leather Belting and Laces for same.

Jenkinson (W.) & Co., 44, London Wall, London.—Saddlery.

Jones & Rocke, Cambrian Leather Works, Salop Road, Wrexham.—Leather for Covering Rollers used in Cotton Spinning.

Lennan & Son, 29 & 30, Dawson Street, Dublin.—Saddlery and Harness.

Mason (D.) & Sons, Bath Row, Birmingham. — Saddlery; Harness; Bridles; Whips; Machine Bands; Fire Hose; Leather Buckets; Laces; Portmanteaus, &c.

(*See Descriptive Notice.*)

Middlemore (Wm.), Holloway Head, Birmingham (Agents for the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta).—Saddlery; Mill Banding; Army Appointments Leather.

Lancashire Patent Belting and Hose Co. (D. & S. J. McMechan), "Wire Works" Mills, Strangeways, Manchester.—Main Driving Belts.

The Exhibitors are Proprietors of the Patents and sole Manufacturers of the "Lancashire Patent Belting," specially adapted for all classes of work in the Indian climate. Their Belting is unequalled for Heavy Main Driving, and is not affected by Heat, Water, Steam or Acids. Its Durability and Tensile Strength are greater than those of any other Belting, and its "grip" and adhesion enormous. It runs absolutely true and steady, and having little or no stretch, does not require repeated taking up.

Belts any width and for any hp. are always kept in stock;

Endless Belts for Agricultural purposes, Electro-Dynamos, &c.;

Leather-bound Edges for severe friction;

Also best English Oak-tanned Leather Belting, all descriptions.

This Firm obtained the highest awards for Belting at Paris, 1878; Sydney, 1880; Paris (Electric Exhibition), 1881; and Melbourne, 1880-81.

Mason (D.) & Sons, Bath Row, Birmingham.—Saddlery; Harness; Bridles; Whips; Machine Bands; Fire Hose; Leather Buckets; Laces; Portmanteaus, &c.

This Firm was established in the year 1762. It is now one of the largest manufacturing houses in the trade.

In order to produce goods at a cheap rate without deteriorating the quality or appearance, the premises of the Firm are arranged in departments. One is entirely devoted to currying and finishing leather in all its details, the most expensive machinery being employed. To ensure the fitting and durability so essential in a Saddle the Saddle Trees used are all made by the Firm upon the most approved method known.

The Brand or Trade Mark of the Firm is well known throughout the world for all kinds of Saddles, whether the light racing, elegant East Indian, or heavy Colonial.

The Harness Department is very varied in its manufactures. Here may be seen the light Buggy, heavy and expensive State Gig, Carriage, Cart, and Plough Harness of all kinds, and suitable for different climates.

The Exhibitors also manufacture an endless variety of Bridles, Straps, Ladies' and Gentlemen's Belts, and Bags, Whips Horse Clothing, Girths, Portmanteaus, Trunks, &c.

The Machine Band department, a very extensive one, is devoted to the making of all kinds of Banding for Machinery, Fire Hose, Leather Fire Buckets, Laces, &c. Leather being almost the only material used in this industry, Messrs. D. Mason & Sons, who are curriers on a large scale, are enabled to produce all of the best quality at the lowest prices.

The Exhibitors are contractors to the English, Indian, and other Governments for supplying Military Saddlery, Harness, Whips, Accoutrements, and general Army requisites.

Messrs. Ledger, Smith and Co., of Calcutta, are the Agents for the Exhibition.

Nicholls (F. V.) & Co., 2, Jermyn Street, London (Agents at Exhibition: Maynard, Harris and Co.)—Saddlery

Rawlings (S.) and Son, South Parade Works, Frome, Somersetshire. —Leather Belting.

(*See also Section G.*)

Tullis (John) and Son, St. Ann's Leather Works, John Street, Bridgeton, Glasgow.—Leather, Cotton Canvas, and other Beltings; Leather Laces; Fire Hose and Buckets, &c.

The manufactures of this Firm include every description of Mechanical Leathers;

Main Driving Double Belts (any width), prepared by a special process of the Exhibitors, and guaranteed to run perfectly straight;

Tullis' Patent Leather Chain Belting, used extensively for engineers' tools, saw mills, and electro-dynamo machines;

Tullis' Patent Leather-Edged Cotton Canvas Belting, of great durability, driving strain and capacity, and yielding far more than proportional cheapness in working results, especially suitable for jute and cotton machinery;

Best Single and Double Leather Belting, lace sewn, copper wire sewn, hemp sewn and riveted, and cemented only;

Ordinary Cotton Canvas Belting, strongest and heaviest;

Leather Fire Hose; Leather Fire Buckets; Leather Laces of all kinds; White, Cowhide, Cordovan, Antelope and St. Ann's Crown; Leather and Buffalo Pickers; Buffalo Skips; Green and Tanned Picking Bands; Round Leather Banding; Hide Ropes for Hoists; Cotton Ginning Leathers; Walrus Hide for polishing purposes; Belt Fasteners of all descriptions; and other general mill furnishings.

Walsh, Lovett & Co., Birmingham, Sheffield, and London; and Commercial Buildings, Calcutta. — Leather Machine Belting and other Leather Goods for Mills and Mill Furnishings.

(*See also Sections D. & G.*)

Baylis, Gilles & Co., Newgate Street, London. — Wools; Silks; Embroideries; Fancy Work; "Penelope" Yarn.

"**Penelope**" **Yarn** is a remarkably smooth and evenly spun yarn, which commends itself in working by its uniform regularity. It is produced in all tints. The quality is good and the price low. Cards may be obtained at the Stand in the Exhibition Building.

Included in this exhibit are also "Filoselle" Silks of very fine finish and in immense variety of delicate degrees of colour;

Berlin Wools ("Penelope" quality), the skeins of full weight, the quality excellent, and price moderate.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Belfast Ropework Co., Limited, Connswater, Belfast. — Ropes and Lines for Shipping, Fishing, Agricultural, and General purposes.

Carlile (James), Sons & Co., Bank End Mills, Paisley, Scotland. —Sewing Cottons.

Clayton, Marsdens & Co., Limited, Wellington Mills, Halifax.—Waste Silk; Specimens in various stages of progress; Spun Silk Yarns and Fabrics.

Bazley Brothers, Wellington Mills, Ancoats, Manchester.—Fine Cotton Yarns.

TRADE MARK.

These Yarns are employed in the manufacture of Muslin, Thread, Lace, Velvet, Alpaca, and Silk and Satin Mixtures.

The Single Yarns are supplied either Reeled (in Bundles) or in Self-actor Pincops for Weft, and in Self-actor Twist Cops for Warp.

The Twofold Yarns are sold either in bundles or in warps, Soft-twisted, Medium-twisted, or Hard-twisted, according to requirement.

Bleached or Unbleached Yarns, Gassed or Ungassed, in super and in extra super qualities, are also supplied in the qualities exhibited.

Bird (R.) & Co., Crewkerne, Somerset.—Webs of all descriptions for the Saddlery and Upholstery Trades, &c.

The manufactures of this Firm include:—

Cotton, Linen and Woollen Webs of every description;

Chair, Tray and Cocoa Binding Webs for Upholstery purposes;

Ready-made Girths and Rollers, of various qualities and materials;

Ready-made Bandages, Halters, &c.

The Exhibitors are Patentees of the Straining Webs which they manufacture, and claim that in the department of web-making they cover a greater range than any other manufacturing firm.

Messrs. R. BIRD & Co. are represented at this Exhibition by Messrs. J. M. JOHNSON AND SONS, Limited.

Gould (Job), West of England Twine Works, West Coker, Yeovil, Somerset.—Twines; Cords; Ropes, &c.

The goods exhibited are not specimens prepared for show purposes, but ordinary samples of the Exhibitor's manufactures.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Grimston (R. and T.) & Co., Clifford Mills, near Tadcaster; and Mickley, Yorks.—Shoe Thread; Twines; Seaming and Roping Twines; Rice Threads; Sheaf Binding Threads, &c.

Harris (J.) & Sons, Derwent Mills, Cockermouth (Agent at Calcutta, J. Crowder). — Linen Threads for Hand and Machine Sewing; Flax and Tow Yarns.

(*See Descriptive Notice.*)

Jackson (T.) & Co., High Street, Manchester.—Sewing Thread.

TRADE MARK.

This Sewing Thread is made either glacé or soft finish.

The Sole Agents for India are Walsh, Lovett & Co., Commercial Buildings, Calcutta.

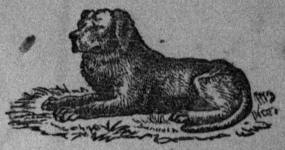
Lostock Hall Spinning Company, Limited, Lostock Hall Mill, near Preston, Lancashire.—Samples of Cotton; Cotton in Process; Medium and Fine Yarns.

McConnel and Company, Limited, Henry Street, Ancoats, Manchester.—Cotton Yarns.

Mosses & Mitchell, 64 and 71, Chiswell Street, London.—Vulcanised Fibre.

Lee Spinning Company, Atherton, near Manchester. — Single, Double, and Polished Cotton Yarns.

ESTABLISHED UPWARDS OF 80 YEARS.



TRADE MARK.

This collection of Exhibits includes:—

Two-fold to eighteen-fold Grey Yarns, Cable Yarns, and Sewings, plain, prepared, and gassed, in warp or bundles in counts 30s. to 200s.;

Polished Yarn, in black, ingrain, fancy, and aniline colours, all kinds and counts.

Preston (W.) & Son, Leicester. —Elastic Boot Webs.

Reddaway (F.) & Co. Pendleton, Manchester.—Improved Cotton Machine Belting for Tropical Climates.

The advantages claimed for this Belting are as follows:—

It is cheaper and stronger than leather.

The breaking strain is 250 per cent. greater than leather.

It is of equal strength and thickness throughout.

It clings to the pulley, and runs true.

There is no joining, and the belting can be made endless.

The sole Wholesale Agents for Calcutta, N.W Provinces and Assam, are THE PLANTERS' STORES AND AGENCY CO., Limited, 30, Strand, Calcutta.

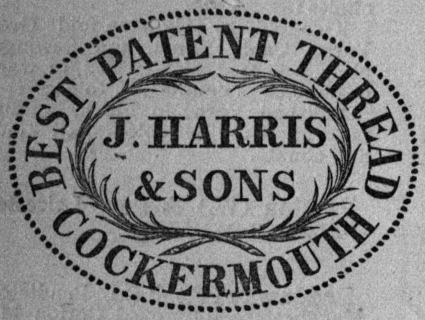
Ward (Anthony) & Co., Albion Mills, Leek, Staffordshire.—Sewing and Machine Silks; Embroidery and Saddlery Sewing Silks.

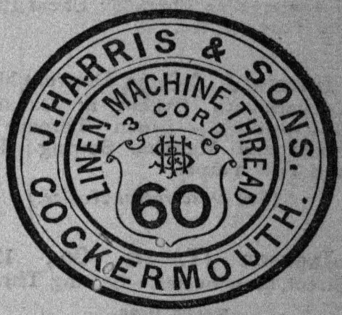
(*See also Section B.*)

Wilson & Bentleys, 50, St. John Street, London.—Bookbinders' Cloth.

Harris (J.) & Sons, Derwent Mills, Cockermouth.—Linen Threads for Hand and Machine Sewing; Flax and Tow Yarns for Weaving.

TRADE MARKS.





This Firm has been established upwards of fifty years. Every process in manufacture, from the raw material to the finished state, is conducted by them on their own premises, and under their own personal supervision, with the assistance of the best skilled operatives in the trade. They can therefore guarantee the quality and regularity of every article produced by them, and can refer to the character and extent of their business in the Home and Foreign Markets, in proof of the reputation for reliability which their goods enjoy in the opinion of practical consumers and high-class dealers.

AGENCIES IN LONDON, MANCHESTER, EDINBURGH, GLASGOW, BRISTOL, NEW YORK, TORONTO, PARIS, HAMBURG, BRUSSELS, GENOA, SYDNEY, MELBOURNE, NEW ZEALAND, CALCUTTA.

BOOKBINDERS' THREADS, CARPET THREADS; FISHING THREADS; SADDLERS' THREADS, GLOVERS' THREADS;

MACRAMÉ AND ALL OTHER LACE THREADS;

CREWEL THREADS;

FLOURISHING THREADS, GILLING TWINES;

HARNESS CORDS FOR EVERY VARIETY OF LOOMS;

LACING TWINES FOR JACQUARD LOOMS;

TWINES, PARCELLING CORDS;

FISHING LINES, WINDOW SASH CORDS;

HAND SEWING THREADS, FOR TAILORS AND DOMESTIC PURPOSES;

SEWING MACHINE THREAD, FOR EVERY CLASS OF WORK FROM THE HEAVIEST TO THE LIGHTEST, &c.

Brown (Wm.) & Co., 40 and 41, Old Broad Street, and 38 to 40, St. Mary Axe, London.—Papers.
(For Descriptive Notice see Section B.)

Spalding & Hodge, 34, Cannon Street, City, London.—Hand-Made Papers; Machine-Made Papers.
(For Descriptive Notice see Section B.)

Waterlow & Sons, Limited, 25, 26, and 27, Great Winchester Street, London.—Watermarked Papers for Banks, Cheques, Certificates, &c.
(See Descriptive Notices, Sections A. and B.)

Brooks, Shoobridge & Co., Portland Cement Works, Grays, Essex. —Portland Cement.

Copal Varnish Company, Limited, 46, Bankside, London (Agents for the Exhibition: Ahmuty and Co., Church Lane, Calcutta).—Varnishes for Coach Painters, House Decorators, and others.

Doulton & Co., Lambeth, London (Agents for the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta).—Terra Cotta for Building Purposes; Norman Doorway; Plinth, Balustrade and Capping, String Courses; Window Heads, Terminals, &c.; Blue Metallic Ware for Copings for Wall and Railway Platforms; Stable and other Pavings; String Courses; Channel Bricks.

At all the principal International Exhibitions, including those of London, Paris, Vienna, Philadelphia, Sydney, Melbourne, and Amsterdam, Messrs. Doulton and Co. have received the highest awards, including the Grand Prix at Paris and Legion of Honour.
(See also Sections A., C., D., G. and I.)

Brunner, Mond & Co., Limited, Northwich.—Alkali; Carbonate of Soda.

TRADE MARK.

B.M&C°

"CRESCENT" BRAND.

PURE ALKALI.—This Alkali, manufactured by the ammonia process (Solvay's Patent), is the strongest and purest form of the article now in the market, and is the best substitute for potash, and much cheaper. The most economical form of Alkali for the use of Calico Printers, and for Bleachers and Dyers of either Linen, Cotton, Silk or Wool. This Alkali is naturally free from all sulphur compounds, and is used for the finest white papers and with the most delicate colours.

Glass Paper and Soap of the highest class are obtained by its use.

The following is a full analysis of the Pure Alkali, which is guaranteed to contain 58 English degrees of Alkalinity:—

ANALYSIS—PURE ALKALI.

Pure Alkali by English Alkalimetrical Test			Washing Alkali by English Alkalimetrical Test.
	Carbonate of Soda	98.90	
	Chloride of Sodium	.50	
	Sulphate of Soda	.18	
	Carbonate of Lime	.23	
	Carbonate of Magnesia	.14	
	Alumina	.01	
	Peroxide of Iron	.003	
58·85	Silica	.01	48
	Carbon	.001	
		99·974	

WASHING ALKALI contains 48 degrees of *Alkalinity*.
This *mineral* Alkali has in Europe entirely taken the place of potashes, pearlashes, woodashes, and other *vegetable* Alkalies for washing, scouring and cleaning.

Engert & Rolfe, Barchester Street, Poplar New Town, London. —Felts for Ships' Sheathing under copper and under wood; Roofing Felts; Fibrous Asphalte for anti-damp course in wall.

Fordham (W. B.) & Sons, 36 to 40, York Road, King's Cross, London. —Emery and Glass Paper; Emery and Glass Cloth; Knife Powder; Glue; Glue Powder, &c.

The manufactures of this Firm include:—
Emery, Emery and Glass Paper, Emery and Glass Cloth;
Knife Powder, Brass Polish;
Furniture Polish, Brunswick and Berlin Black;
Silver Soap, Dog Soap;
Rouge, Tripoli, Crocus;
Knife Boards; Household Brushes;
Wood Taps with Square Corks: Domestic Woodware;
The "Fly Cheat," Meat Cages, Sieves;
Zinc Jugs (superior), Polished and Japanned;
The St. Pancras Self-acting Washing Machine;
Zinc Garden and Window Syringes;
Carpenters' and Workmen's Baskets; Painters' Brushes.

The Exhibitors are Purveyors by appointment to the Royal Dockyards, and largely supply Government and other Contractors.

They are Importers of American and German Woodware;

Egg Beaters;
Broom Handles, Carpet Brooms;
Carpenters' Bench Screws;
Clothes Pegs, Mouse Traps;
Chamois Leathers and Gloves;
Sponges, Bellows;
Feather Dusters, Mops;
Jelly Bags;
Kitchen Crystal Soap, &c.
And Agents for
Gard & Co.'s Plate Cloths, Brass and Steel Cloths, and Jewel Cloths;
Cannon & Co.'s Concentrated Size and Glue Powder;
James & Sons' "Dome" Black Lead;
Patent "Cube" Fire Lighters.

The Firm was established in 1825.

Catalogues with 700 Illustrations, and net prices, may be had through all Shipping Houses upon receipt of business card.

Francis & Co., Nine Elms Wharf, Vauxhall, London; and Cliffe, Rochester, Kent (Sole Agents for Calcutta: Walsh, Lovett and Co., Commercial Buildings).—Cement.

Gillingham Portland Cement Company, Limited, 69, King William Street, London Bridge, London (Agents for the Exhibition: Ahmuty & Co., Church Lane, Calcutta).—Cement.

Goddard (Joseph), Station Street, Leicester. — Non-Mercurial Plate Powder; Furniture Cream; Silvering Solution; Chemical Polishing Paste; Jewellers' Rouge.

GODDARD'S NON-MERCURIAL PLATE POWDER, for cleaning and polishing SILVER, ELECTRO-PLATE, BRITANNIA METAL, BLOCK TIN, PLATE GLASS, &c., has been in use for more than FORTY YEARS. The Exhibitor claims that it was the first Plate Powder for which a large sale was obtained, and that it is unique in composition, containing no injurious ingredients.

The Powder is put up in boxes at 1s., 2s. 6d., and 4s. 6d. each.

GODDARD'S FURNITURE CREAM is a Preparation for cleaning and polishing CABINET FURNITURE, for reviving and preserving the lustre of French Polish, Papier Mâché, Oil Cloth, &c., and for restoring the appearance of Russia and Morocco Leather.

The Cream is made up in bottles at 6d. and 1s. each.

GODDARD'S SILVERING SOLUTION is used for RE-SILVERING, without the aid of electricity, articles plated on copper. By its use the appearance of copper at the edges through wear may be prevented.

The Solution is sold in bottles at 1s. each.

GODDARD'S CHEMICAL POLISHING PASTE produces a brilliant and lasting polish on all metals. Its good keeping properties specially recommend it for exportation. The Paste is put up in tin boxes at 6d. and 1s. each.

GODDARD'S JEWELLERS' ROUGE is genuine Rouge, and for purity and fineness is unsurpassed. It is sold in boxes at 1s. each.

Goodlass, Wall & Co., Liver Works, Liverpool. — Varnishes; Paints; Oils; Colours.

(*See Descriptive Notice.*)

Gostling (John Cubitt) & Co., Limited, 83, Gracechurch Street, London.—Portland Cement.

Griffiths, Berdoe & Co. (THE SANITARY PAINT CO.), Limited, 51, South John Street, Liverpool; 34, Leadenhall Street, London.—Paints; Varnishes; Colours.

(*See Descriptive Notice.*)

Goodlass, Wall & Co., Liver Works, Liverpool. — Varnishes; Paints; Oils; Colours.

TRADE MARK.

Messrs. Goodlass, Wall and Co. are Contractors to the English Government, the East India Railway Company, the Great Indian Peninsula Railway Company, &c.

Of the samples exhibited attention is particularly directed to the following:—

COLOURS—Suitable for Oil and Water;

PAINT—Patent GENUINE WHITE ZINC;

" GENUINE WHITE LEAD;

" GENUINE OXIDE PAINT suitable for Bridges, Ironwork, &c., and all Descriptions of Paints for House and Ship purposes;

PAINT—READY MIXED, in 1, 2, 4, 7, 14, and 28 lb. tins;

COMPOSITIONS — Patent Antifouling for Ships;

VARNISHES—Suitable for Wood, Cabinet, Carriage, and Paper Work;

OILS—Refined Linseed Boiled Oil, Double Boiled Oil, and Raw Linseed Oil.

The Sole Agents for India are Messrs. Walsh, Lovett & Co., Commercial Buildings, Calcutta.

Hockin, Wilson & Co., 38, Duke Street, Manchester Square, London. —Clear Essence of Rennet.

Clear Essence of Rennet, as exhibited, is only one of a large number of articles produced by the Exhibitors, who manufacture large quantities of Seidlitz Powder, Toilet requisites, and other Chemicals.

(*See also Sections B., C. & E.*)

Holzapfel & Co., 41, Quayside, Newcastle-on-Tyne; Mount Stuart Square, Cardiff (HOLZAPFEL & Co.); 5, Chapel Walks, Liverpool (HOLZAPFEL & Co.); 12, Waterloo Street, Glasgow (HOLZAPFEL & Co.); 9, New Broad Street, London (A. C. HOLZAPFEL & Co.). — Anticorrosive and Antifouling Compositions for Ship's bottoms.

(*See Descriptive Notice.*)

Howards and Sons, City Mills, Stratford, Essex.—Dyeing and Colouring Materials; Tartar Emetic; Golden Sulphide of Antimony; Borax, &c.

(*See Descriptive Notice.*)

Griffiths, Berdoe, & Co. (THE SANITARY PAINT CO.), Limited, 51, South John Street, Liverpool; 34, Leadenhall Street, London.—Paints, Varnishes; Colours, &c.

This Collection of Exhibits includes a number of articles manufactured specially for hot climates:—

GRIFFITHS' PATENT WHITE.—This is the only reliable substitute for White Lead and Oxide of Zinc. Its colour is pure and permanent; its quality far superior to White Lead and equal to "Snow White" Zinc Oxide, with covering power and opacity 25 per cent. greater than genuine White Lead, and 100 per cent. greater than White Zinc;

The Highest Award at the Paris International Exhibition, 1878, the Special Gold Medal of the "Sanitary Institute of Great Britain," and many other Prizes, have been awarded in respect of this article;

SILICATE PAINTS.—These are produced in all colours, for house, ship, and general use, internal or external. They are non-poisonous, brilliant, and durable, with much greater covering power than ordinary paints, and are far more economical. The colours are permanent and exceedingly rich and pure;

ENAMEL PAINTS.—These are prepared ready for use in all colours. They entirely supersede the use of Varnish, and dry quickly, with a hard glazed surface like porcelain; two coats being equal to three of ordinary paint and one of varnish;

SILICATE DISTEMPER.—A Water Paint in all colours, forming a most durable and economical substitute for Wall Papers. It is especially suitable for Hospitals, Prisons, Asylums, and other Public Buildings;

VARNISHES of all kinds, in the highest perfection and of the best quality.

Paints for ship's use, &c., are supplied by the Exhibitors.

Holzapfel & Co., 41, Quayside, Newcastle-on-Tyne; Mount Stuart Square, Cardiff (HOLZAPFEL & Co.); 5, Chapel Walks, Liverpool (HOLZAPFEL & Co.); 12, Waterloo Street, Glasgow (HOLZAPFEL & Co.); 9, New Broad Street, London (A. C. HOLZAPFEL & Co.).—Anticorrosive and Antifouling Compositions for Ship's bottoms.

The specimens exhibited comprise:—

IRON PLATE PAINTED WITH INTERNATIONAL ANTIFOULING COMPOSITION;

IRON PLATE PAINTED WITH GENUINE RAHTJEN'S ANTIFOULING COMPOSITION;

IRON PLATE PAINTED WITH MARINE ENAMEL;

IRON PLATE SHOWING EFFECT OF RUST;

CASE OF BARNACLES AND OTHER FOULING MATTERS, REMOVED FROM SHIPS' BOTTOMS;

MODEL OF A STEAMER PAINTED WITH INTERNATIONAL COMPOSITION;

The International Antifouling Composition never affects the Iron, sets perfectly smooth, and dries within half an hour.

The Colour is the same as Rahtjen's Composition, but the International Composition is stronger and more effective as an Antifouler.

THE EXHIBITORS OFFER TO COAT ONE SIDE OF STEAMERS AS A TRIAL AGAINST ANY OTHER COMPOSITION, PAYMENT FOR THE WHOLE VESSEL TO BE MADE TO THE FIRM WHOSE SIDE HAS KEPT CLEANEST AFTER A FAIR TRIAL.

GENUINE RAHTJEN'S COMPOSITION is supplied at considerably reduced prices. All casks, drums, &c., containing this Composition, whenmanufactured by Messrs. M. Holzapfel & Co., BEAR THE NAME OF THE FIRM IN FULL, so as to distinguish the GENUINE RAHTJEN'S COMPOSITION (warranted to be made according to patent) from all the variations and imitations which may be offered under the name of Rahtjen's Composition.

THE TELEGRAPHIC ADDRESS OF THE FIRM IS "INTER," NEWCASTLE-ON-TYNE, CARDIFF, LIVERPOOL, AND GLASGOW.

Howards & Sons, City Mills, Stratford, Essex.—Dyeing and Colouring Materials; Tartar Emetic; Golden Sulphide of Antimony; Borax, &c.

TARTAR EMETIC (Antimonium Tartaratum) is largely used by calico printers as a mordant in dyeing. When prepared as now exhibited it may always be relied upon for purity. Many cheaper makes contain intermixed sulphate and chloride of potassium (which are not unlike in appearance) and other impurities.

GOLDEN SULPHIDE OF ANTIMONY is much used in Rubber manufacture for producing the well-known tint of Red Rubber.

BORAX and BORACIC ACID, as now exhibited, are employed in combination with Nitre as food preservatives. BORAX is also extensively used in the Arts.

BORACIC ACID is a pleasant and effective medical antiseptic.

THE EXHIBITORS ARE MANUFACTURERS OF QUININE SALTS, PHARMACEUTICAL, PHOTOGRAPHIC AND OTHER CHEMICALS, AND ARE CONTRACTORS FOR THE SUPPLY OF CHEMICALS TO H.M. NAVY, TO THE CROWN AGENTS FOR THE COLONIES, AND TO THE AGENT-GENERAL FOR THE CAPE OF GOOD HOPE. They are also MANUFACTURERS OF CINCHONA ALKALOIDS FOR THE INDIAN GOVERNMENT.

The Firm was established in 1798.

The Highest Honours have been obtained at the following International Exhibitions:—London, 1851; Paris, 1855; London, 1862; Paris, 1867 (Gold Medal).

Price lists are furnished on application.

(*See also Sections B., C. & H.*)

Johnson (W. W. & R.) & Sons, Victoria Lead Works, Limehouse; and 10, Fenchurch Avenue, London.—White Lead; Red Lead.

(*See Descriptive Notice.*)

Jones (Frederick) & Co., Perren Street, Ryland Road, Kentish Town, London.—"Silicate Cotton" or "Slag Wool," Manufactured from Iron Ore—for the non-conduction of heat or cold; Silicate Boiler Covering Cement; Anti-Incrustation Boiler Composition.

Johnson (W. W. & R.) & Sons, Victoria Lead Works, Limehouse; and 10, Fenchurch Avenue, London. — White Lead; Red Lead.

These Exhibits show the stages of manufacture from Metallic Lead into Lump Dry White Lead, packed in wood or iron casks for India, Australia, and other markets;

"Drop Flake White," specially prepared for Artists' use;

Genuine Red Lead of best quality;

All packages sent out by the Exhibitors bear their registered Trade Mark and brand of guarantee as to quality, body, excellence, and freedom from adulteration or impurity.

(*See also Section G.*)

Kerr, Tarruck & Co. — Fluid Enamel for Varnishing Wood.

(*See also Section G.*)

Lee (W.), Son & Co., Snodland, Kent.—Portland Cement and Manufactures therefrom.

Morris & Griffin, Wolverhampton. —Self-Polishing Liquid and Paste Blacking; Writing and Copying Fluids, &c.

The Manufactures of this Firm include all kinds of Ammonia, Disinfectants, Fertilisers of every description, Animal Charcoal, &c.

Three Prize Medals have been obtained by he firm at London and Paris Exhibitions for excellence of manufacture.

Messrs. Morris & Griffin are represented in Calcutta by Messrs. T. E. THOMSON & Co., 9, Esplanade Row.

Newth & Co., 42, Percival Street, London.—Furniture Polish.

Nubian Manufacturing Company, 8 and 9, Hosier Lane, Snow Hill, London (Agents for the Exhibition: Balmer, Lawrie and Co., 5, Clive Street, Calcutta).—Blacking; Dubbing; Furniture Polish, &c.

Pilcher (J. G. & J.) & Sons, Morgan's Lane, Tooley Street, London (Agents at the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta). — Ground White Lead; Paints; Colours; Varnish; Machinery Oils.

Scollick (A. J.) & Co., 27, Mincing Lane, London.—Patent Steam Joint Mastic; Mastic Paint.

THE PATENT STEAM JOINT MASTIC is 30 per cent. cheaper than Red Lead. It is also far cheaper than any other jointing material, more durable, always ready for use, and does not get hard by keeping. It is used by the largest Firms and Companies in the United Kingdom and on the Continent of Europe.

Supplies are being sent to Woolwich Arsenal for the British Government, and to some of the largest Railways and Gas Works in the United Kingdom, including the Gas Light and Coke Co., Beckton and elsewhere.

PATENT MASTIC PAINT is specially prepared for Engineers, Boiler Makers, Contractors, Railway and Steamship Companies, Shipbuilders, Gas Works, &c., and offers many advantages over other Paints.

The Mastic Paint is cheap, possesses covering properties much greater than Lead or Oxide Paints, withstands great heat, is very durable (well-painted surfaces remaining in a perfect condition for many years), offers resistance to the greatest heat or cold, does not crack, blister, or flake off when exposed to the weather, however severe, and can be applied to any material for decoration purposes or rough work, being ground to the fineness of enamel.

Silicate Paint Company (J. B. ORR & Co., PROPRIETORS), Charlton, Kent; and 46, Cannon Street, London.—"Charlton White" (a substitute for White Lead); "Duresco" (washable water paint); Enamels; Silicate Paints; Varnishes; Painters' Materials.

(*See Descriptive Notice.*)

Skitt & Co., 93, Sumner Street, Southwark Bridge Road, London.—Paints.

(*See also Section D.*)

Smith (George), Sen., Bank Lane Chemical Works, Clayton, near Manchester. — Anti-Incrustation Composition for Boilers.

Stephens (H. C.), 191, Aldersgate Street, London.—Stains for Wood.

(*See Descriptive Notice.*)

"Willesden" Patent Waterproof Paper and Canvas Company, Limited. London: 34, Cannon Street, City. — Waterproof Paper Houses; Canvas Tents.

(*For Descriptive Notice see Section B.*)

Silicate Paint Company (J. B. ORR & Co., PROPRIETORS), Charlton, Kent; and 46, Cannon Street, London.—"Charlton White" (a substitute for White Lead); "Duresco" (washable water paint); Enamels; Silicate Paints; Varnishes; Painters' Materials.

GUARANTEED SILICATE PAINTS are produced exclusively by the Exhibitors, whose manufactures, as now shown, have been used in the exterior work of the Exhibition.

CHARLTON WHITE (ORR'S PATENT).—This is a non-poisonous White Paint, which retains its colour, is more powerful than white lead, and less expensive, and more durable, than white zinc.

ORR'S DURESCO.—Mellow tones, unattainable by any oil flatting, are produced by this washable distemper Paint, at one half the cost of oil paint.

CHARLTON SILICATE OIL PAINT.—This Oil Paint is prepared in all colours and in packages of all sizes, and ready mixed for use, if required. It is hard drying, and fast in colour.

CHARLTON ENAMEL PAINT.—This Enamel Paint, prepared in liquid form ready for the brush, is the best preservative for all exposed iron work. It is in great request for all kinds of decorative work.

Varnishes, Stains, and Painters' Materials of every description are also included in the manufactures of the Company, who supply Descriptive Books, Pattern Cards, Testimonials, and Directions for using their Manufactures.

The attention of buyers is called to the Trade Mark, as above, which appears on every package.

The Company have received first-class Prizes at all the important Exhibitions during the last ten years. They have Agents in all the Indian provinces.

Stephens (H. C.) 191, Aldersgate Street, London.—Stains for Wood.

The Stains, as exhibited, are economical, the process being so simple as scarcely to require any experience, while painting necessitates labour and requires large quantities of colour. The Stains are more durable than paint, showing little alteration even after an interval of twenty years. They dry quickly, without smell, and hence the whole interior of a house, which would take a month or six weeks to paint, can be finished in a week. At the various International Exhibitions, including those recently held at Sydney, Melbourne, and Adelaide (Gold Medal), Christchurch, New Zealand (Gold Medal), the Highest Awards have been secured in respect of these Stains.

(*See also Section B.*)

Wilson & Co., East London Colour Works, Jubilee Street, Mile End, London.—Colours; Paints.

Yorkshire Varnish Company, Ripon; and 39, Upper Thames Street, London.—Varnish; Paints; Colours; Enamels; Japans.

The Manufactures of this Company include:—

Varnishes of every description for Railway Carriage Builders, Coach Builders, House Decorators, Ship Builders, Agricultural Implement Makers, and others.

The Company are Paint Grinders and Manufacturers of Colours in great variety, including Emerald-tinted Greens, Blues, Superior Chrome, Yellows, &c. The Riseley Purple Brown, manufactured by the Company, is an exceedingly rich colour, of great body, and price remarkably low.

The Exhibitors are Sole Inventors and Proprietors of the celebrated White Enamel "Albarine," which has been used for interior decoration upon all the principal ships in the Royal Navy during the past ten years.

Samples of the Company's manufactures may be obtained in the Exhibition Building.

Knos (And.) & Co., 9, Fenchurch Avenue, London.—Swedish Matches.

Pain (James), 121, Walworth Road, London.—Fireworks.

Ledger, Smith & Co., St. Mary's Chambers, St. Mary Axe, London.—Egyptian-made Cigarettes of pure Turkish Tobacco (Gianaclis).

Wood (John) & Son), 23 and 25 Queen Victoria Street, and 23, Pall Mall, London; Manufactory:—8, Southwark Street, London.—Cigarettes; Turkish Tobacco.

Dickinson (John) and Co., Paper Manufacturers, 65, Old Bailey, London E. C.

PRINTINGS—Extra Superfine, Fine, and 2nd, 3rd, 4th, and 5th Qualities;

Plate, Woodcut, Chart, Map and Litho;

News, Machine and Tubsized;

Hand-made Writing and Printing Papers;

Machine-made Writings, Tub and Engine sized;

Coloured Papers, for Covers of Pamphlets, Prospectuses, Posters, etc.;

Surface-Coloured and Enamel Papers and Tissues;

Blottings;

Cards, Cardboards, and Pasteboards, White and Coloured;

Envelopes.

MILLS: Apsley, Nash, Home Park, Croxley Batchworth, Frogmoor and Two Waters. Manufacturers of Printing Papers of every description, wholesale and export.

LONDON WAREHOUSE, 65, Old Bailey, E. C., Calcutta Office, 7, New China Bazar Street.

(*See Section B.*)

Gillingham Portland Cement Co., Kent.—Portland Cement.

Gosnell (Jno.) Sons London.—Brown Soaps.

Thomson (T. E.) & Co., 9 Esplanade Row, Calcutta.—A *Collective Exhibit*—Copal and Carriage Varnishes and Stains.

Winstone (B.) & Sons, London. Samples of Printing Inks and Dry Colors and Paints.

Agents: John Dickinson & Co., Calcutta.

(*See also Section G.*)

Dewhurst (John) & Sons, Belle Vue Mills, Skipton, Yorkshire.—Sewing and Crochet Cottons.

(*See Advertisement.*)

Defries (J.) and Sons, 147, Houndsditch, London, Paris; and 70, Bentinck Street, Calcutta.—Portand Cement.

Section G.

MACHINERY AND IMPLEMENTS, MEANS OF TRANSPORT, APPLIANCES AND PROCESSES USED IN THE COMMON ARTS AND INDUSTRIES, INCLUDING MODELS AND DESIGNS.

(*CLASSES* 82 *to* 109.)

Aluminium Crown Metal Company Limited, 34, Leadenhall Street, London (Sinclair Hamilton & Co.)—Aluminium Metals (Webster's Patent).

Asquith (William), Highroad Well Works, Halifax.—Self-acting Slotting Machine; Lathe; Bench Drilling Machine.

Avery (W. & T.), London and Birmingham.—Machines for Railway Stations and Warehouses; Machines for Weighing Passengers' Luggage; Railway Trucks and Waggons of any capacity; Locomotive Spring Testers.

Avery (W. & T.), London and Birmingham. —Weighing Machines for Mining Purposes.

Nos. 113 & 123 can be supplied without any loose weights; also with tare weights for tareing wheelbarrows and tubs.

(*See other Entries in this Section, also Sections B., C., D. and I.*)

Avery (W. & T.), London and Birmingham.—Registering Weighing machines.

(*See Descriptive Notice.*)

Baxter (W. H.) & Co., Central Chambers, Albion Street, Leeds.—Patent Knapping Motion Stone Breaker.

(*See Descriptive Notice.*)

Bagnall (W. G.), Castle Engine Works, Stafford.—Light Locomotive Engines; Portable Railways and Waggons.

This collection includes a small 5-inch Cylinder Bogie Locomotive Engine, working on a portable railway two feet gauge, with samples of tipping and other useful waggons, as at work in England, Holland, France, Spain, Italy, Russia, Egypt, Cuba, Porto Rico, Java, India, South America, The Cape, Zanzibar, Sandwich Islands, Brazil, Chili, Australia, and New Zealand.

Miniature Railways are now at work in all parts of the globe, and have given satisfaction wherever employed.

Sole Agents: Walsh, Lovett & Co., Commercial Buildings, Calcutta.

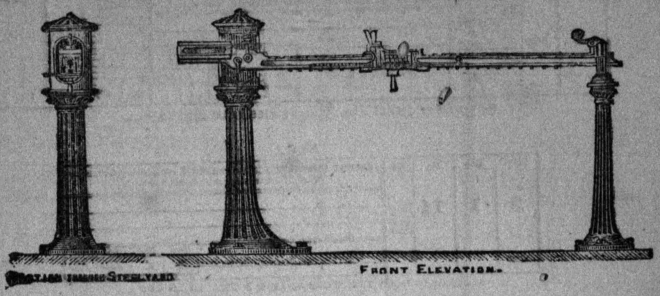
Beamish (Geo. H. T.) A.I.C.E., Spy Hill House, Queenstown, Ireland.—Models Illustrating Method of Construction with Concrete Blocks combining General Cohesion of the Structure with freedom for uneven settlement of foundation.—(Portion of Breakwater.)

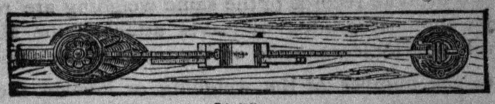
Blackman Air Propeller Ventilating Company, Limited, 17, Austin Friars, London. — The "Blackman" Air Propeller and Ventilator.

(*See Advertisement.*)

Bolling and Lowe, 2, Laurence Pountney Hill, London. — Portable Railway and Waggons.

Avery (W. & T.), London and Birmingham.—Registering Weighing Machines.





REGISTERING WEIGHING MACHINES, WITHOUT LOOSE WEIGHTS.

The principal Advantages are as under:—

A record of each weighing can be printed upon a ticket or slip of paper, and an indelibly stamped single, duplicate or triplicate record taken at the time of weighing, by the machine itself, thus entirely preventing any such errors as frequently arise through mistakes in reading the weights.

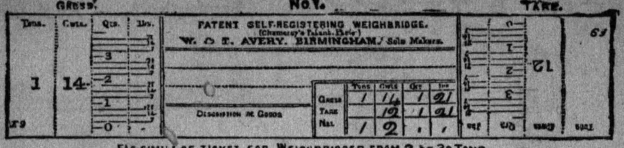
This PATENT ARRANGEMENT is of extreme simplicity, very durable, and consists of a number of raised figures of hardened steel fixed on the under side of the Steelyard corresponding with the various divisions or notches. When the goods to be weighed are placed upon the platform of the machine, the slide is moved along until it reaches the nearest division, when the small bar which passes through this slide, and has figures likewise corresponding with its divisions, is moved until the beam attains a true balance. The card or slip of paper is then inserted in the small slot in the large slide, and a handle underneath pulled which presses the card against the figures, thus giving the record.

The extreme simplicity of this arrangement is a guarantee of its perfect working and great durability, and admits of its ready adaptation to any Platform Machine or Steelyard whether of the Exhibitors' or other make.

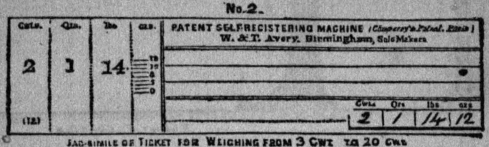
The removal of the Beams from all kinds of Weighing Machines of their own and other makers' manufacture now in use, and the fitting of the old Machines with their new patent Beam, is undertaken by the Exhibitors, who supply estimates on application.

The Self-Registering Machine records on the ticket, when desired, both the gross and tare weight.

Nos. 1 and 2 shown below are fac-similes of the tickets used with the Self-Registering Machines. No. 1 shows that a weighing of both gross and tare has been made, both of which have been printed on the ticket by the Machine itself. The Machine having printed the gross and tare weight, all that is required (so as to secure a complete record on the ticket) is to deduct the tare from the gross and write it underneath on the ticket. No. 2 shows that only one weighing has been made, gross, tare, net, as the case may be.



FAC-SIMILE OF TICKET FOR WEIGHBRIDGES FROM 3 TO 30 TONS.



FAC-SIMILE OF TICKET FOR WEIGHING FROM 3 CWT TO 20 CWT.

When two or more records of the same weighing are required, the tickets can have one or more similarly printed fly leaves attached, the Machine will then imprint the weight on fly leaf (or leaves) and on the ticket at the same time.

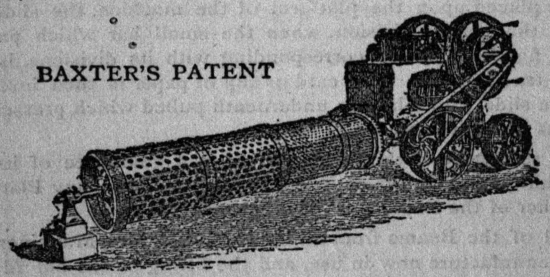
A note of the number of the weighing or invoice, the name of the purchaser or vendor, can be made on the middle or back of the ticket.

The tickets can be modified in design to suit the requirements of all users of weighing machines and weighbridges.

The London Offices and Show Rooms of the Exhibitors are at 14, 15, and 16, Cow Cross Street, and the Manufactory and Head Office at Digbeth, Birmingham.

(*See other Entries in this Section, also Sections B., C., D. and I.*)

Baxter (W. H.) & Co., Albion Street, Leeds.—Patent Knapping Motion Stone Breaker, and Ore Crusher.



KNAPPING MOTION STONE BREAKER.

This Machine requires less power, will do more work, produces a better sample of road metal, and can be regulated to break or crush any kind of material with greater rapidity than any other Machine. From eight to twelve tons per hour can be broken with it, according to the nature of the material.

The STONE BREAKER is made in various sizes to suit the varied requirements of purchasers and can be supplied without wheels and screen if these be not required. The size of the one exhibited is 20-in. by 9-in.

The three Prize Medals last awarded in England in respect of machines of this kind were given to Messrs. W. H. Baxter and Co.

The Exhibitors are Engineers and Makers of all kinds of Patent Stone Breaking and Ore Crushing Machinery.

The Sole Agents are Messrs. WALSH, LOVETT AND CO., Commercial Buildings, Calcutta.

Baldwin (E. P. and W), Wilden Iron Works, near Stourport, England.—Makers of Tin and Terne Plates, Sheet Iron and Button Iron.

BRANDS. TIN PLATES AND TERNE PLATES.

"EP & WB" / WH } Very superior Plates specially manufactured for deep stamping, and second to none in the market.

"WILDEN" } Best Charcoal Plates of first-class quality.
"UNICORN" } CHARCOAL—These are Charcoal Plates of really sound quality.
"ARLEY" } TIN—Our best Coke Plates (equal to ordinary Welsh Charcoal.)

"STOUR" COKE TIN. Our common Coke Plates (superior to Welsh best Cokes.,

TIN PLATES of the above qualities rolled in all sizes from 8 × 6 ins. up to 40 × 28 ins. TERNE PLATES up to 36 × 24 ins. SQUARES and CIRCLES from 8 inches to 28 inches.

BUTTON IRON OR BLACK TAGGERS.

BRANDS—"WILDEN" Charcoal and Stour Coke. In various sizes, and in all gauges from 30 to 45 W. G.

SHEET IRON.

BRAND—"SEVERN" { Altbough these are our cheapest quality of Iron Sheets, they are of superior finish and more malleable than ordinary South Staffordshire makes

			EXTREME LENGTHS.	EXTREME WIDTHS.
BRAND—"BALDWIN-WILDEN B"	quality	Rolled in Singles to 20 WG.	13ft. long.	50in. wide
,, ,, ,, BB"	,,	Doubles 21 to 24 WG.	12ft. long.	42in. wide
,, ,, ,, BBB"	,,	Trebles 25 to 27 WG.	10ft. long.	36in. wide
,, ,, ,, Charcoal"	,,	Extra Trebles 28 WG, 29 WG, and 30 WG.	8ft. long.	36in. wide.
,, ,, ,, B Charcoal"	,,			
,, ,, ,, EB Charcoal	,,			

Sheet Iron of all qualities pickled, clod rolled, and close-annealed.

Special attention is directed to the thin sheet iron exhibited, it being only ·002 thick, this is believed to be the thinest sheet iron ever made of similar length and width—70 inches long 10 inches wide.

AWARDS.

VIENNA EXHIBITION, 1875 ... ... DIPLOMA OF MERIT.
SOUTH AFRICAN INTERNATIONAL EXHIBITION, 1877 ... ... GOLD MEDAL.
PARIS UNIVERSAL EXHIBITION, 1878 ... GOLD MEDAL.

(The only One Awarded to any Iron Tin Plate Maker.

PARIS INTERNATIONAL EXHIBITION, 1879 ... GOLD MEDAL.
SYDNEY EXHIBITION, 1879 ... ... FIRST AWARD OF MERIT.
MELBOURNE EXHIBITION, 1880 ... ... GOLD MEDAL, FIRST AWARD.

Represented by T. E. THOMSON & Co., Calcutta.

Burn & Co., Howrah Iron Works, Howrah, Bengal.—A Collective Exhibit comprising:

BELL COLEMAN & Co's., Glasgow, Machine for refrigerating purposes, and largely used for the preservation of meat and stores, Ice making, etc. The cooling house exhibited is divided into three rooms, the first room being at a temperature of 70°, the second room being at a temperature of 50°—both rooms being furnished as sitting rooms. The last or freezing room is arranged for the preservation of meats, such as beef, fowls, etc., and also contains a freezing oven for ice-making purposes. The degree of temperature in this room is about 30° below Farht. The cold blast is furnished from one of Bell Coleman's noted Machines, and is designated as a 10,000 machine, and is driven from an upright boiler of tubular type. These cooling rooms are strongly recommended for surgical operations, and the house as it stands could be connected to one of the hospitals in this country.

PULSOMETER ENGINEERING Co., London.—Deane pumps and filters. Pulsometer pumps.

The large pump which is to be seen working from a pile staging, arranged in the large tank situated near the Machinery shed, is designated as a No. 9 pulsometer; it discharges 36,000 gallons of water per hour; the piping is arranged so that the discharge of the pump can either be seen in the form of a fountain, or through an open pipe. The vertical lift of water from these pumps being in many instances as high as 80 feet. The pulsometer will work just as well *suspended from a chain or rope* as if it were permanently fixed; its very small size, in proportion to the quantity of water thrown, making it available in a great variety of situations where no other pump can possibly be applied, and it is confidently recommended as certain to give satisfaction in the most awkward positions and for the most trying work. The pulsometer will, where the conditions remain constant, *work day and night without attendance*, in fact as long as steam and water are supplied to it. This could hardly be said of any other steam-pump. Testimonials from users, who have had pulsometers working for long intervals in wells and shafts without any attention, can be had on application.

Note.—One of our principal reasons for showing a large pulsometer working is to do away with the prevailing idea in this country that a Pulsometer is a toy pump.

GLEN ROSS & Co., Glasgow.—Steam Hammers (Rigby's patent).

MERRYWEATHER, & Co., London—Portable Fire Engines, Pumps and samples of different kinds of Fire Hose.

GARRET & Co., Suffolk.—Compound Portable and Semi-Portable Engines. Specimens of flanged Boiler plates.

These celebrated Engines are of a new type, being on the compound principal—thus effecting a considerable saving in fuel. The steam working pressure being 120lbs. per square inch, consequently better results, such as power, etc., are derived from these engines, than those obtained from the ordinary common type of Portable Engine.

HORNSBY AND SON, Lincolnshire.—Portable Engines.

JOHN and EDWIN WRIGHT, Birmingham.—Celebrated improved Steel Wire Ropes.

These steel ropes are used largely for coal mining purposes, ship's riggings, etc., and though being of something like half the diameter of the ordinary rope, they possess double the strength. Messrs. Edwin Wright and Co. are makers of the Submarine Atlantic Cable.

LEROY & Co., London.—Samples of non-conducting composition for preventing loss of steam, by condensation in long steam pipes.

Samples of the composition in its different stage are to be seen in our stand.

CLAYTON & SHUTTLEWORTH'S Portable Engines.

Portable Steam Engine to be seen working and supplying steam to a No. 9 Pulsometer Pump.

Box & Co., Dudley, Worcestershire; and Calcutta.—Anvils; Vices; Nails; Rivets; Locks; Bolts; Nuts.

Braby (Frederick) & Co., Limited, Fitzroy Works, 360, Euston Road, London; and Deptford, Liverpool and Glasgow.—Perforated Zinc and other Metals; Galvanised Iron and Zinc Goods; Zinc Roofs and Skylights.

Britannia Company, Colchester.—Lathes and other Appliances for Turning; Sewing Machines.

Brown (J. B.) & Co., 99, Cannon Street, London.—Galvanised Wire Netting, with Improved Registered Selvage.

Burrell (C.) & Sons, Thetford, Norfolk (Agents for the Exhibition: Ahmuty and Co., Church Lane, Calcutta).—Portable Engines.

Cammell (Charles) & Company, Limited, Cyclops Steel and Iron Works, Sheffield; Derwent Iron and Steel Works, Workington; Yorkshire Steel and Iron Works, Penistone; Grimesthorpe Steel, Tyre, and Spring Works, Sheffield; Old and New Oaks Collieries, Barnsley (Agents for the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta).—Steel, Files, Springs, Buffers, Tyres; Forgings in Steel; Armour, Boiler, Ship, and Frame Plates, &c.
(See Descriptive Notice.)

Carrington (W.), 9, Fenchurch Avenue, London (Agents: Walsh, Lovett & Co., Commercial Buildings, Calcutta).—Wire Rope Tramway.

Carter (J. H.), 82, Mark Lane, London.—Disintegrating Machine for Grinding, Crushing, and other purposes.

Chatwood's Patent Safe and Lock Co., Limited, London, Liverpool, Manchester, and Leeds. Works: Bolton, Lancashire (Agents for the Exhibition: Balmer, Lawrie and Co., 5, Clive Street, Calcutta).—Fire and Burglar Proof Safes; Deed and Cash Boxes; Locks.

Clayton & Shuttleworth, Lincoln.—Portable Steam Engines.

Chatwin (Thomas), Victoria Works, Gt. Tindal Street, Birmingham.—Stocks, Dies and Taps; Hand Power Screwing Machines; Rimers; Twist Drills; Standard Cylindrical Gauges; Ratchet Braces; Clyburn and Budding and Quickly Adjusted Spanners; Tube Cutters; Patent Tube Cutter and Wrench combined; Pipe Wrenches; Gas Pipe Tongs and Pliers, &c.

This exhibit comprises a very large assortment of the above-named Tools, of which the Exhibitor has been for many years one of the most extensive manufacturers.

The business was founded by the present Proprietor in the year 1849, has been gradually developed by him, and is now one of the largest manufactories of such Tools in the world.

The Exhibitor's aim has always been to supply Tools made from the best materials, and of the very best workmanship and design, and his manufactures are well known by most of the large Wholesale Dealers, and are used by a great many of the leading Railway Companies, Government Works, Gas Companies, &c.

Coalbrookdale Co., Limited. Works: Coalbrookdale, Shropshire. Show Rooms: London, 43, Holborn Viaduct; Bristol, 82, Castle Street. Agencies: London, 118, Cannon Street; Liverpool, 19, Sweeting Street; Manchester, 29, Princess Street.—Castings and Works in Iron, Bronze, Aluminium, and other Metals.
(See Descriptive Notice.)

Cochrane (John), Barrhead, near Glasgow.—Steam Engines; Steam Hammers.
(See Descriptive Notice.)

Colville (David), Dalzell Steel Works, Motherwell, Scotland.—Steel Plates and Bars.

Cradock (George) & Co., Wakefield.—Steel and Iron Wire Ropes for Colliery and Railway Purposes, Tramway Cars, Transmission of Power Capstans, Hawsers and Cranes; Aerial Railways and Bridges; Steam Cultivation Ropes; Model of Foot Bridge for Hill Streams in India, &c.
(See Descriptive Notice.)

Cammell (Charles) & Co., Limited, Cyclops Steel and Iron Works, Sheffield; Derwent Iron and Steel Works, Workington; Yorkshire Steel and Iron Works, Penistone; Grimesthorpe Steel, Tyre, and Spring Works, Sheffield; Old and New Oaks Collieries, Barnsley.—Steel, Files, Springs, Buffers, Tyres; Ordnance, Marine, and Locomotive Forgings in Steel; Armour Plates; Boiler, Ship, and Frame Plates; Rails; Steel Castings.

CAMEL

CYCLOPS

The manufactures of Messrs. Charles Cammell & Co., Limited, embrace all the parts used in railway construction, of STEEL AND IRON.

The Company have supplied the Indian State, East Indian, Great Indian Peninsula, Bombay, Baroda, and Central India, Oude and Rohilcund, Scinde, Punjaub, and Delhi, Eastern Bengal, Madras, and South Indian Railways, with their best toughened Bessemer Steel Rails, Crucible and Bessemer Steel Tyres, Axles, Springs, &c. There are now running in India ALONE, no less than 24,140 Axles, made of the Company's HOMOGENEOUS CHARCOAL IRON, considered by many to be superior in quality to the BEST YORKSHIRE brands.

The last order issued by the Oude and Rohilcund Railway, for 16,485 tons of Steel Rails, is in course of execution by the Company, who also have the contract for the supply of 72,695 tons of Rails to the New South Wales Government Railways. Their Rail Mills are capable of producing 5,000 tons per week.

In addition to many smaller marine forgings (crank and propeller shafts, connecting and piston rods), which the Company have at present orders to supply, they are making and finishing the three-throw Crank Shaft, 31-ft. 1¼-in. long over all, 5-ft. 0-in. stroke, for the Cunard Steamship "*Gallia*," one of the largest Atlantic vessels afloat. This shaft requires three ingots, of twenty-two, thirty and forty tons weight, respectively. The lathe used in turning it will take in pieces up to 32-ft. in length by 13-ft. diameter. This lathe has four compound rests, arranged to work at any angle and in all directions. The weight of material in it is no less than 150 tons, and there are 6,000 cubic feet of masonry in the foundations.

During the four years 1879, 1880, 1881, and 1882, respectively, the Company received orders for 107, 150, 327 and 370 (together 954) locomotive crank axles, of which 140 were for Railways in India.

The marine Shafts, &c., and locomotive Crank Axles above referred to, are all made of the Company's "SPECIAL" Cast Steel.

The various establishments of the Company give employment to 5,500 men, and distribute £10,500 per week in wages; the weight of finished goods produced during the same period averaging 7,000 tons.

Amongst the Prize Medals obtained by the Exhibitors may be mentioned:—

LONDON, 1851 AND 1862;
MOSCOW, 1872;
VIENNA, 1873;
PHILADELPHIA, 1876;
PARIS, 1878;
MELBOURNE, 1880.

Coalbrookdale Co., Limited. Works: Coalbrookdale, Shropshire. Show Rooms: London, 43, Holborn Viaduct; Bristol, 82, Castle Street. Agencies: London, 118, Cannon Street; Liverpool, 19, Sweeting Street; Manchester, 29, Princess Street. — Castings and Works in Iron, Bronze, Aluminium, and other Metals.

TRADE MARK.

The manufactures of this Company include:—

ENTRANCE GATES IN CAST AND WROUGHT IRON, or a combination of both;

FENCING for above *en suite;*

FENCING of all kinds for PARKS, BALCONIES, and PUBLIC PLACES, TOMBS, &c.;

VERANDAHS, WINDOW GUARDS and SCREENS, BALCONIES;

PAVILIONS, KIOSKS, BAND STANDS;

CONSERVATORIES, WINTER GARDENS, &c.;

STAIRCASES, BALUSTERS, and INTERIOR IRON WORK of all kinds;

FOUNTAINS for PUBLIC SQUARES and PARKS, PRIVATE GARDENS, INTERIOR COURTS, and DRINKING USES;

VASES, JARDINIERES, and FLOWER STANDS;

SEATS and CHAIRS of varied designs with IRON SEATS, WROUGHT and CAST;

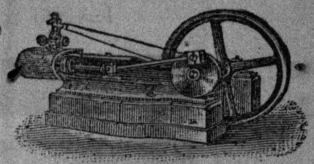
PUBLIC MONUMENTS and TROPHIES;

STATUES and FIGURES modelled and executed in IRON or BRONZE to order. (See Bronze Figures exhibited per Messrs. JOHN SHAW & SONS, Wolverhampton.)

Indents are executed by the Company through all English Shippers.

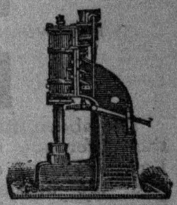
The Coalbrookdale Co., Limited, have received the highest awards for "Excellence of Castings" at the great Exhibitions, including and since that of 1851; they having previously received in 1787 and 1849 the Society of Arts Gold Medals, specially conferred.

Cochrane (John), Barrhead, near Glasgow. — Steam Engines; Steam Hammers.



HORIZONTAL AND VERTICAL EXPANSION STEAM ENGINES (with and without BOILERS) are manufactured by the Exhibitor, who desires to call special attention to his AUTOMATIC EXPANSION VALVES;

Also STEAM HAMMERS (Hand and Self-acting).



Agents for India: Walsh, Lovett & Co., Commercial Buildings, Calcutta.

Crystal Porcelain Pottery Co., Limited, Cobridge, Stoke-on-Trent, Staffordshire. — Telegraphic Insulators.

(*See also Section D.*)

Davey, Paxman & Co., Standard Iron Works, Colchester and 139, Queen Victoria Street, London. — Compound Engines; Horizontal Fixed Engines; Ordinary Portable and Semi-Portable Engines; High Pressure Portable and Semi-Portable Engines; Semi-Fixed Engines and Boilers combined; Vertical Engines and Boilers.

(*See Descriptive Notice.*)

Daniell (S. A.), Edward Street, Birmingham (Agents at the Exhibition: Balmer, Lawrie and Co., 5, Clive Street, Calcutta). — Screw Stocks, Dies, and Taps; Tube Cutters; Ratchet Braces, &c.

(*See also Section B.*)

Dick (W. B.) & Co., 101, Leadenhall Street, London; and Glasgow.— Light Railway and Tram Materials.

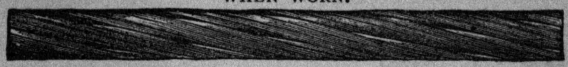
(*See Descriptive Notice.*)

Cradock (George) & Co., Wakefield.—Steel and Iron Wire Ropes for Colliery and Railway Purposes, Tramway Cars, Transmission of Power, Capstans, Hawsers and Cranes; Aerial Railways and Bridges; Steam Cultivation Ropes; Model of Foot Bridge for Hill Streams in India, &c.

LANG'S PATENT WIRE ROPE.

WHEN NEW.

WHEN WORN.



ORDINARY OR OLD CONSTRUCTION.

WHEN NEW.

WHEN WORN, SHOWING HOW THE WIRES BREAK ON THE CROWN OF THE STRAND.

The above illustration clearly indicates the difference in construction between Lang's Patent and the ordinary method, and the appearance of ropes, manufactured in either way, when removed after work.

At Messrs. George Cradock and Co.'s stand are exhibited for comparison specimens of Lang's Patent Rope reduced by actual wear and of rope made by the ordinary method, the time during which each has worked being stated.

The Silver Medal of the Royal Agricultural Society of England for 1883 has been awarded for Lang's Patent Wire Rope.

Sole Agents for India:—Messrs. BALMER, LAURIE & Co., Calcutta.

Dickson, Bros., & Co., Waverley Works, Sheffield.—Files; Tools; Steel.

Disturnal (R.) & Co., Wednesbury.—Axles.

Dixon (Alfred A.), 24, Queen Victoria Street (Agents at the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta).—Injector; Ejector; Fish Plates; Safety Valves.

Doulton & Co., Lambeth, London (Agents for the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta).—Plumbago and Fire Clay Crucibles; Furnaces; Melting Pots and all kinds of Pottery for Melting, Assaying, and other operations; Condensing Worms; Acid Pumps; Retorts; Mixing Pans; Acid Jars; Receivers; Acid Cocks; Pans; Bowls; Percolators; Pottery for Chemical purposes; Insulators; Porous Battery Cells; Electric Wire Underground Protectors, &c.

Messrs. Doulton and Co. have received the Highest Awards at all the principal International Exhibitions, including those of London, Paris, Vienna, Philadelphia, Sydney, Melbourne, and Amsterdam. At Paris they were awarded the Grand Prix and Legion of Honour.

(See also Sections A., C., D., F. and I.)

Duncan Brothers, 32, Queen Victoria Street, London; and 79, Commercial Street, Dundee.—Photographs of Machinery.

Eagle Edge Tool Company, Wolverhampton.—Edge Tools, &c.

(*See also Section I.*)

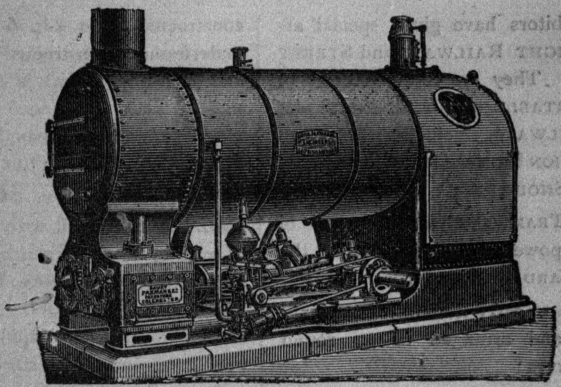
Easterbrook, Allcard & Wild, Albert Works, Sheffield.—Engineers' Hand Tools and Railway Tools (Models).

East Yorkshire Cart and Waggon Company, Limited, Beverley, Yorkshire (Agents for the Exhibition: Balmer, Lawrie and Co., 5, Clive Street, Calcutta).—Iron Wheels and Axles.

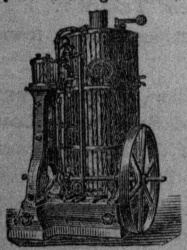
Davey, Paxman & Co., Standard Ironworks, Colchester, and 139, Queen Victoria Street, London. — Compound Engines; Horizontal Fixed Engines; Ordinary Portable and Semi-Portable Engines; High Pressure Portable and Semi-Portable Engines; Semi-Fixed Engines and Boilers combined; Vertical Engines and Boilers.

COMPOUND ENGINES.—These Engines are made of the Semi-fixed type, *i.e.*, with Boilers combined, from 40 to 150 Indicated HP., and of the Fixed type, with Boilers detached, from 40 to 300 Indicated HP. The Compound Engine exhibited by Messrs. Davey, Paxman & Co., is a 16 HP. nominal. It is fitted with Paxman's Patent Automatic Governor and Expansion Gear, which is very sensitive and keeps the Engine under perfect control. The boiler is of the Locomotive type, made entirely of steel, and is capable of working up to 140 lbs. steam pressure. The fire-box is made of an excellent mild and ductile steel, expressly manufactured for the Firm. The excellent results obtained with this material in the construction of Fire-boxes, warrant the Exhibitors in recommending it in preference to the Low Moor or other Yorkshire Iron generally used for the purpose.

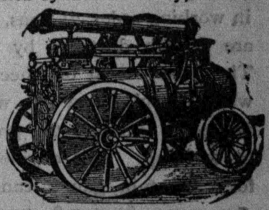
HORIZONTAL FIXED ENGINES.—Engines of this type are made by Messrs. Davey, Paxman & Co. in three classes. Class A ranges from 4 HP. to 10 HP., nominal; Class B., called the "Girder Engine," from 40 to 100 Indicated HP., or, if coupled, from 75 to 200 Indicated HP., and Class C from 75 to 300, or if coupled, 150 to 600 Indicated HP. Classes B and C are fitted with Condensers when required. The 10 HP. engine, of this type, exhibited by Messrs. Davey, Paxman & Co., belongs to the Class A. It is fitted with Paxman's Patent Automatic Governor and Expansion Gear.



ORDINARY PORTABLE AND SEMI-PORTABLE ENGINES. — Messrs. Davey, Paxman & Co. have paid special attention to this branch of their manufactures, and the 8 HP. Portable Engine exhibited by this Firm embodies many new and important improvements. It is mounted on a strong Wrought Iron Carriage with four Indestructible Wrought Iron Wheels of Improved design. Paxman's Patent Automatic Expansion Gear is fitted to these Engines when required.



HIGH PRESSURE PORTABLE AND SEMI-PORTABLE ENGINES.—The Engine of this type, exhibited by Messrs. Davey, Paxman & Co., is of the 8 HP. size. It is made to work at 120 lbs. on the square inch. The Boiler is entirely of Steel. The Engine is built in a Wrought Iron Frame, which is bolted to four brackets riveted on the Boiler, so that when required it may be removed from or replaced on the Boiler in a very short space of time, without displacing many of its parts. This engine has been specially designed for countries where transport is difficult and costly, and coals and water scarce and expensive.



SEMI-FIXED ENGINES AND BOILERS COMBINED.—This type of Engine is extensively used for Electric Light Installations. The Engine exhibited by Messrs. Davey, Paxman & Co. is a small specimen of the type. It is fitted with Paxman's Patent Automatic Governor and Expansion Gear. The boiler is of the Locomotive type. These Engines are made from 12 to 40 Indicated HP., with Single Cylinder, and from 40 to 150 Indicated HP. with Double Cylinders. They indicate from three to three and a half times their nominal HP.

VERTICAL ENGINES AND BOILERS.—Messrs. Davey, Paxman and Co. are large makers of Vertical Engines, with or without Boilers. These Engines and Boilers are made with Single Cylinders from 1 to 12 HP. nominal, and with Double Cylinders from 6 to 25 HP. nominal.

(*See Advertisement.*)

Dick (W. B.) & Co., 101, Leadenhall Street, London; and Glasgow.—Light Railway and Tram Materials.

The Railway System as here illustrated has been adopted in the following countries:—South Africa, Australia, India, Fiji, Central America, Tunis, Burmah, Cuba, South America, Java, Russia, Spain, West Indies, Germany, Turkey, Peru, &c.

LIGHT PORTABLE RAILWAY.

The Exhibitors have given special attention to LIGHT RAILWAYS and STREET TRAMWAYS. They are manufacturers of PATENT PORTABLE and SEMI-PORTABLE FIXED RAILWAYS, including ROLLING STOCK, STATION SIGNALLING APPARATUS, REPAIRING SHOPS, &c.;

STREET TRAMWAYS for the use of mechanical power, as approved by the ENGLISH BOARD OF TRADE;

TRAMCARS to carry from fifteen to sixty passengers, and arranged to go round thirty-feet curves;

SPECIAL TRAMWAY POINTS and CROSSINGS, CAR SHEDS, &c.

The Collection exhibited includes:—

SIDE TANK LOCOMOTIVE, capable of hauling 80 tons on the level, and weighing in working order 7½ tons. The Cylinders are 6 inch diameter by 12 inch stroke. The arrangement of wheels—that is, four wheels coupled and two wheels trailing—is such as to secure the greatest steadiness in working. This engine, which is built for a 2-ft. 6-in. gauge, can be built to suit any gauge, from 2-ft. to 5-ft. 6-in. The design has been carefully studied, and all the material and workmanship are the best of their respective kinds.

THE CAR, COVERED GOODS WAGGON, and OPEN GOODS WAGGON exhibited are constructed for a 2-ft. 6-in. gauge. The underframe is constructed entirely of iron, and all the woodwork is of the best Moulmein teak. The dead weight of these waggons and the carrying load will compare favourably with main line rolling stock.

THE SMALL 2-FT. GAUGE PORTABLE RAILWAY exhibited, with its various types of rolling stock, is worthy the attention of all interested in MINES, PLANTATIONS, or RECLAMATION WORKS. A line of railway similar to that exhibited will cost £365 per mile, including steel sleepers, steel rails 14 lbs. per yard, and all fastenings complete.

The Exhibitors have supplied upwards of 175 miles of their TRAMWAY PERMANENT WAYS to various leading towns in England.

For a full description of the STEEL SLEEPERS, RAILS, and SYSTEM OF CONSTRUCTION, as also of the three SYSTEMS OF STEAM TRAMWAY PERMANENT WAYS, and particulars of the Railway and Tramway Material supplied by Messrs. W. B. Dick & Co., reference is requested to the large Catalogues, containing 180 illustrations, issued by the Firm.

The London Offices of the Firm are at 101, Leadenhall Street, where all communications should be addressed.

Edwards (William) & Son, Griffin Works, Wolverhampton; and 27 and 28, King William Street, London Bridge, London (Agents for the Exhibition: Balmer, Lawrie & Co., 5, Clive Street, Calcutta). — Edge Tools; Spades; Shovels; Hammers; Axes; Adzes; Pick Axes; Contractors' Tools; Estate Tools; Mining Tools; Plantation Hoes.

TRADE MARKS.

Machinery on a most extensive scale for turning out the American Pattern Shovels and other Tools enables the Exhibitors to produce in large quantities and of the best quality.

Messrs. William Edwards and Sons are sole Patentees and Makers of Solid Eye Pickaxes, Edge Tools, Hoes, &c., made on an entirely new principle, and Patentees and Manufacturers of the new All Steel "General Hoe." This Hoe, being light and durable, is expected to supersede all others for hot climates.

Mamooties, Axes, Sledge Hammers, Spades, Pickaxes, Adzes, Stone Hammers, and Shovels are included in the Manufactures of the Firm, who are also the Original and only Manufacturers of the "Best" quality Horseshoes.

The Firm was established in 1828.

(*See also Section I.*)

Everitt (Allen) & Sons, Kingston metal Works, Birmingham (Agents at the Exhibition: Sinclair, Hamilton & Co., 35, Clive Street, Calcutta).— Brass and Copper Locomotive, Marine, Gas, and Steam Tubes; Brass and Copper Wire; Rolled Metals; Wrought Copper Nails; Rivets, &c.

Exton & Co., Hercules Works, Chippenham, Wiltshire. London Office: 141, Queen Victoria Street, City.—Light Steel Pipes for Gas, Water, Steam, Mining, Pumping, Pressing, Irrigation, Ventilation, &c.

Felten & Guilleaume, 101, Leadenhall Street, London; and Carlswerk, Mulheim-on-the-Rhine, Germany. — Iron and Steel Wire; Galvanised Wire, Strand, and Ropes, &c.

(*See Descriptive Notice.*)

Evans (Joseph) & Sons, Heath Town Works, and Culwell Foundry, Wolverhampton. — Pumps.

The manufactures of this Firm include:

The "Cornish" Steam Pump;
The "Reliable" Steam Pump;
The "Ram" Steam Pump;
The "Culwell" Horse Pump;
The "Culwell" Hand Pumps;
Evans's Colliery Pumps;
Evans's Irrigation Pumps;
Evans's Fire Pumps;
Evans's Gas Works Pumps;
Evans's Mining Pumps;
Evans's Railroad Pumps;
Evans's Boiler Feeding Pumps;
Evans's Domestic Pumps;
Evans's Pumps for every purpose.

Messrs. JOSEPH EVANS AND SONS were awarded a Gold Medal at the Amsterdam Exhibition, 1883. (The highest award given for Pumps.)

The "Pickering" Governor was awarded Gold Medals at the International Exhibitions of Paris, Vienna, Philadelphia, London, Melbourne, and Sydney.

Messrs. JOSEPH EVANS AND SONS are represented at this Exhibition by Messrs. WALSH, LOVETT & Co., Commercial Buildings, Calcutta.

Farmer, Robey, Brown & Co., Limited, Trent Foundry, Gainsborough.—Portable Steam Engine; Independent Vertical Steam Engine and Boiler.

Fowler (John) & Co., Steam Plough and Locomotive Works, Leeds; and 28, Cornhill, London.—Portable Railway and Rolling Stock (including 5-inch Locomotive); 10-HP. Compound Semi-Portable Engine; 8-HP. High-Wheeled Traction Engine.

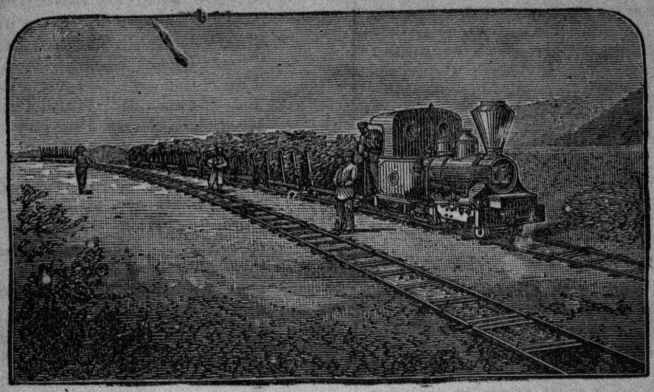
(*See Descriptive Notice.*)

Garrett, (Richard) and Sons, Leiston, Suffolk.—Compound Portable and Semi-Portable Steam Engines.

Gilbert & Co., Kendal, Cumberland.—Vortex Turbine Water Wheel (Model).

Goodby (Samuel) Senr., Herrick Street, Wolverhampton.—Engineers' and Gasfitters' Stocks and Dies; Joiner's Bench, Sash and Flooring Cramps, &c.

Fowler (John) & Co., Steam Plough and Locomotive Works, Leeds; and 28, Cornhill, London.—Portable Railway and Rolling Stock (including 5-in. Locomotive); 10-HP. Compound Semi-Portable Engine; 8-HP. High-Wheeled Traction Engine.



PORTABLE RAILWAY.—This system is based on the principle of distributing loads upon a large number of wheels, and avoiding the use of heavy and cumbersome plant. Its great superiority arises from the fact that the rails are rigidly secured to metallic sleepers, the jointing of the rails being also effected by means of steel chairs (riveted to the sleepers) and clutch-bolts of peculiar form, thus AVOIDING THE DRILLING OR PUNCHING OF THE RAILS, and the use of LOOSE FISH-PLATES AND BOLTS. This arrangement ensures the line being ACCURATE IN GAUGE AT ALL POINTS without any adjustment, and as long as the line remains in use; it will also be clear that the line may be laid down, taken up, removed, and relaid, very expeditiously, WITHOUT THE EXERCISE OF SKILLED LABOUR.

The prominent and unique advantages may be briefly summarised as follows:—

1st.—The expeditious, and consequently economical, manner of laying down and removal.

2nd.—The perfect uniformity and ACCURACY OF GAUGE which is constantly maintained.

3rd.—The great strength and stability of the line, and its NON-LIABILITY TO GET OUT OF ORDER, the wear and tear being practically *nil*.

4th.—The universal adaptability for every climate and description of land, whether unbroken or swampy ground, roughly formed roads, clearings, or cultivated land.

5th.—The rails and sleepers can be shipped separately, thus saving at least 50 per cent. in freight.

This system of Portable Railway is already in extensive use in Great Britain and almost every other country in the world; and is working successfully in EARTHWORKS, DIAMOND FIELDS, COTTON AND SUGAR PLANTATIONS, MINING DISTRICTS AND COLLIERIES; also in dock-yards, arsenals and wharves, and in BRICK, lime, cement, SOAP, sewage, and CHEMICAL works, and in manufacturing operations generally; also in agricultural undertakings, farming and land reclamation, and the GATHERING OF BEET-ROOT, TURNIPS, and other heavy crops.

The railway can be laid down and taken up without the help of any tool whatever. To give an idea of the facility of these operations where frequent removals are necessary—that is to say, in clearing land of beet-root or sugar-cane, &c.—six men take up 250 yards of railway, and relay them 50 yards further on in twenty minutes, the line being moved in lengths of about 25 yards. At "Spreckelsville" plantation, Hawaii, 8,000 tons of sugar-cane were cleared with a 24-in. gauge 14-lb. Portable Railway and two of the Exhibitors' smallest Locomotives, from end of February to beginning of September, 1882, without the aid of any animal labour whatever, except for shunting.

TRACTION ENGINES.—During the past few years the use of the Improved High-Wheeled Traction Engines has much extended. They are employed in driving thrashing machines, and moving them from farm to farm, for grinding and crushing mills, brickmaking machines, mortar mills, pumps, circular saws, &c., and for the general work of farmers, contractors, and builders. Constructed of the best material, with first-class workmanship throughout, being equal in finish to best locomotive work, these engines are unsurpassed for efficiency, economy, and durability in working. All the gearing and the boilers are of steel. The Engines are fitted with *differential gear*, two speeds water-lift and winding forward drum. These Engines have been found most useful for military purposes, dock-yards and railways. When necessary a crane can be attached to them.

COMPOUND SEMI-FIXED ENGINES.—The Exhibitors were the first to introduce these Engines, and after making many experiments and improvements are now able to offer engines which can be as easily handled as any ordinary single or double cylinder engines, and will work with 30 per cent. less coal and water—a very important improvement, especially in countries where fuel is scarce and expensive. The Engines are made from 6 to 50 horse-power (nominal), and are well suited for driving pumping, sawing, and irrigation machinery. They are also largely used in this and other countries driving mill shafting, brick machines, stone breakers, electric light dynamos, and almost every kind of stationary work.

Each engine will give off three times its nominal horse-power, so that a 50-hp. (nominal) will give off 150 effective horse-power.

(*See also Section I.*)

Felten & Guilleaume, 101, Leadenhall Street, London; and Carlswerk, Mulheim-on-the-Rhine, Germany.—Iron and Steel Wire; Galvanised Wire, Strand, and Ropes, &c.

This Collection includes:—

IRON AND STEEL WIRE FOR FENCING AND TELEGRAPH PURPOSES;

GALVANISED STEEL BARB FENCING WIRE;

GALVANISED STRAND;

GALVANISED WIRE ROPES;

TELEGRAPH, TELEPHONE, AND ELECTRIC LIGHT CABLES;

HARD SPELTER, F. & G. "NEPTUNE" BRAND.

REGISTERED TRADE MARK.

The Agents for the sale of these manufactures in India are:—

Messrs. OGILVY, GILLANDERS & Co., 7, St. Mildred's Court, London; and their Correspondents,

Messrs. GILLANDERS, ARBUTHNOT & Co., Calcutta and Rangoon.

Messrs. EWART, LATHAM & Co., Bombay.

Messrs. ARBUTHNOT & Co., Madras.

Greenwood & Batley, Albion Works, Leeds.—Sun Platen Printing Machine, &c.

(*See Descriptive Notice.*)

Gutta Percha Company (Branch of the TELEGRAPH CONSTRUCTION AND MAINTENANCE COMPANY, Limited), 18, Wharf Road, City Road, London.—Copper Conductors (strand and solid) covered with Gutta Percha, as used for Submarine Telegraph Cables, underground lines, both Telegraphic and Telephonic, Electric Lights Leads, Battery, Bell, and House Connecting Wires, &c.; Sheet Gutta Percha for making joints, and other Materials used in the manufacture and working of Insulated Wires; Willoughby Smith's Patent Joints for Subterranean and Telegraph Wires, &c.

Green (E.) & Son, 14, St. Ann's Square, Manchester. Works: Wakefield.—Fuel Economiser.

GREEN'S IMPROVED PATENT FUEL ECONOMISER. This ECONOMISER utilises the waste heat from Steam Boilers, and saves from 20 to 25 per cent. of the fuel. After having been applied to MORE THAN ONE HUNDRED AND THIRTY THOUSAND BOILERS, and subjected to every variety of trial through a long period of years, it still holds its position as the best and most effectual means of *Heating the Feed Water* with the waste or residual heat from Steam Boilers, Furnaces, &c.

The recent improvements in the ECONOMISER, especially in the self-acting Scrapers and in the new style of Gearing, as well as in the method of casting the Pipes and other parts of the Apparatus, render it still more worthy of adoption by all users of steam.

NO LESS THAN TWELVE PRIZE MEDALS HAVE BEEN GAINED BY THIS ECONOMISER AT THE VARIOUS INTERNATIONAL EXHIBITIONS, FROM THE GREAT EXHIBITION OF 1851 TO THE AMSTERDAM EXHIBITION OF 1883, THE HIGHEST AWARD BEING OBTAINED IN EVERY CASE.

Hadfield's Steel Foundry Company, Hecla Steel Castings Works, Attercliffe, Sheffield.—Cast Steel Castings for locomotive, marine, fixed, and other engines; Crushing and Stamping Machinery; Dredgers; Cast Steel Wheels, Axles, &c., for railways, tramways, collieries, gold, tin, lead and copper mines, and quarries.

(*See Descriptive Notice.*)

Hadley Brothers, Nail Works, Eyre Street, Birmingham.—Cut and Wire Nails of every description in Iron and Steel.

(*See Descriptive Notice.*)

Haggie Brothers, Gateshead-on-Tyne.—Wire Ropes for Collieries, Fencing and Shipping.

Hardy Patent Pick Co., Limited, Mining Tool Works, Sheffield.—Railway, Mining, and Engineering Tools.

(*See Descriptive Notice.*)

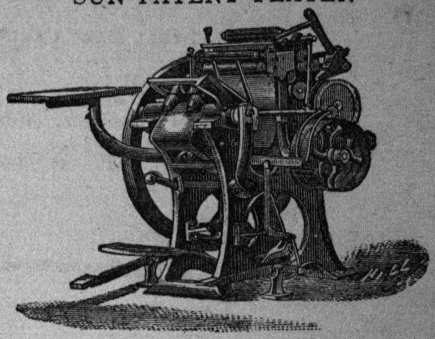
Greenwood & Batley, Albion Works, Leeds (Agents for the Exhibition: Sinclair, Hamilton & Co., 35, Clive Street, Calcutta).—Sun Patent Platen Printing Cutting Lathe, on six-feet bed, with Double Treadle Motion; Patent Hand-power Rock Drill for Mining and Quarrying Purposes; Samples and Photographs illustrating latest Improved Systems of Machinery for Dressing, Preparing, and Spinning Spun Silk Yarns from Waste Silk, also for Treating China Grass; Samples and Photographs illustrating Patent System of Forging Bolts, Nuts, and Rivets, from Bar Iron.

Samples illustrating the Manufacture of Solid Metallic Cartridges on special Machinery.

The various classes of Machinery produced by this firm are:—

Engineers' Machine Tools of General Description;
Wood Working Machinery;
Stamping and Forging Machinery of all Descriptions;
Automatic Screw Making Machinery for Wood and Metal Screws;
Machines for Testing the Strength of Materials;
Sewing Machines for Leather Work;
Special Plant for Electric Lighting;
Special Machinery for producing Arms and Military Stores of every Description. The Exhibitors have supplied Special Machinery of this Description to all the leading Governments of the World.

SUN PATENT PLATEN



PRINTING MACHINE.

Medals: *London*, 1862 (two); *Moscow* (Gold Medal), 1872; *Philadelphia*, 1876 (four); *Paris*, 1878 (Gold and four others); *Melbourne*, 1880; *Sydney*, &c.

Hardy Patent Pick Co., Limited, Mining Tool Works, Sheffield (Agents: Walsh, Lovett & Co.).—Railway, Mining, and Engineering Tools.

The Exhibitors are Patentees and Sole Makers of the "Universal" and "Acme" Mining Picks in Solid Steel, with interchangeable Handles, universally adopted in the Mines of Great Britain; also of Shovels, Spades, Forks, Rakes, Hoes, Hammers, Drills, Wedges, Chisels, Crowbars, Sates, Swages, Anvils, Jim Crows, and every description of Engineers', Mining, Quarry, Railway and Contractors' Tools, Agricultural and Plantation Tools, Hand and Power Boring Machines for Rock and Coal; Steel, and Files.

Prize Medals and other Awards have been obtained by the Company at all the principal Exhibitions.

(*See also Section I.*)

Hathorn & Co., 22, Charing Cross, London. — Hydraulic Tunnel Car; Patent "Eclipse" Rock Drills; Screw Column; Hydraulic Column; Tripods; Length of Hose Pipe and Couplings; Drill Bits; Patent Reliance Air Compressor.

Heaton (Ralph) and Sons, The Mint, Birmingham.—Coins; Medals; Tokens; Brass and Copper Tubes; Sheets; Stampings; Spun Work; Wire.

(*See Descriptive Notice.*)

Henderson (George) & Co.—Barb Wire Fencing.

Hepton (William) & Sons, The Yorkshire Brass and Copper Works, Leeds. — Brass Fittings for Gas, Steam, and Water; Copper Work for Sugar and Oil Refiners and Engineers.

Hindley (E. S.), Bourton, Dorset (Agents for the Exhibition: Maynard, Harris and Co.).—Steam Engines; Saw Benches.

(*See Advertisement.*)

Hadfield's Steel Foundry Company, Hecla Steel Casting Works, Attercliffe, Sheffield.—Cast Steel Castings; for Locomotive, Marine, Fixed, and other Engines; Crushing and Stamping Machinery; Dredgers; Cast Steel Wheels, Axles, &c., or Railways, Tramways, Collieries, Gold, Tin, Lead and Copper Mines, and Quarries.

OUR SOLE SPECIALITY IS

TRADE

MARK.

FROM 4 LBS. TO 16,000 LBS. EACH.

The Steel Castings as exhibited are cast up to 16,000 lbs. each, combining great strength, lightness, and durability; they are therefore specially adapted for export. The Company's other manufactures, specimens of which are also exhibited, include a great variety of Machinery and Plant necessary for Railways, Tramways, Hydraulic Work, Engineering, Agriculture, Colliery Work, Mining, Quarrying, and general contractors' work. Of these special attention is directed to the following:—

RAILWAYS AND TRAMWAYS. — Horn Blocks, Axle Boxes, Piston Blocks, Cranks, Crossheads, Light Plate-layers' Trolley Wheels and Axles, Points, Crossings, Fish-plates, Chairs, Tram Engine Wheels, &c.; Patent "Hecla" Wheels as supplied to the principal Railways and Tramways in this country and abroad, half the weight of Cast Iron Wheels, possessing great strength, and having no tyres, bolts, or nuts to come loose;

HYDRAULIC WORK.—Steel Press Cylinders, up to 22 ft. in length, and to stand any pressure. Also Glands, Pumps, Press Plates, Cheeks, &c.;

ENGINEERS', AGRICULTURAL AND GENERAL CASTINGS.—Crossheads, Cranks, Dredger Castings, Forge and Rolling Mill Castings, Skifes, Traction Gearing, Steel Forgings, &c.;

GEARING.—Every description of Spur, Bevel, Mitre, Pinion, Segment, and Worm Gearing, from 7 lbs. to 7 or 8 tons each, machine-moulded, by patent machinery, or from full patterns. If required, Blocks and Core Boxes for machine-moulded Wheels can be made; also the new *helical* or angular tooth wheels (machine-moulded or from patterns).

COLLIERY, MINING, QUARRY, AND CONTRACTORS' REQUIREMENTS. — Cage Guides, Pedestals, or Bushes, Patent Self-Oiling Wheels (save 50 per cent. grease), Plate and Double Flanged Wheels, Special "Mild" Steel Axles of all kinds, Points and Crossings, Screen Bars, Steel Forgings, &c. One of the Company's Departments is furnished with the latest and best appliances for turning out weekly 2,000 Tub, Corve, or Wagon Wheels, Rollers, and Pulleys, from 6 in. diameter and upwards. More than 1,200 of these Patterns are kept in stock to select from. They possess enormous STRENGTH, combined with DURABILITY (see sheet of statistics) and LIGHTNESS. Upwards of one and a quarter million of them are in daily use, giving complete satisfaction. Before leaving the Works, every Wheel and Axle is subjected to a test pressure of 15 to 30 tons, according to size.

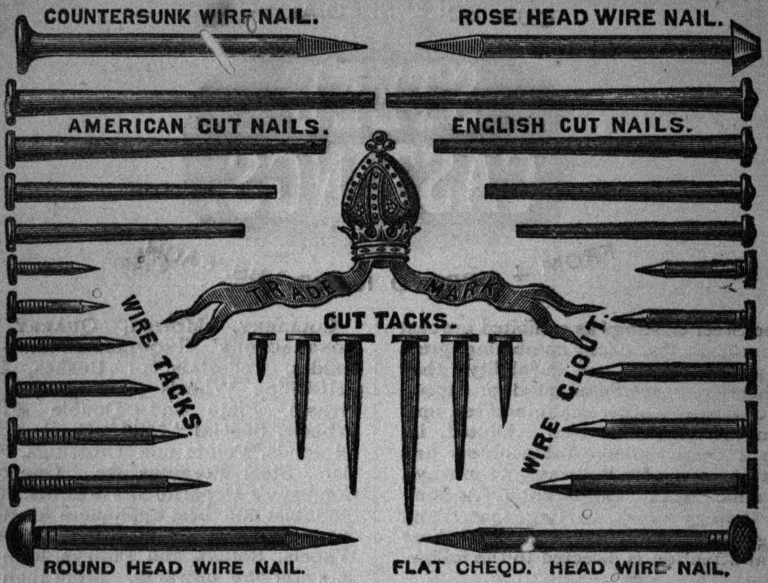
An allowance of ¼ in. per foot for contraction is necessary when preparing patterns. Illustrated Circulars, Prices and Estimates furnished.

The Exhibitors are Contractors to H.M. Home, India and Colonial Governments; Home, India, and Colonial Railways; Admiralty War Department, &c. Over 25,000 of their Steel Trolley Wheels and Axles are in use on Indian and Colonial Railways. The Steel Castings are made capable of supporting 30 to 65 tons tensile strain, according to purpose required.

Gold Medal, Paris, 1878.
Gold Medal, Melbourne, 1880.
Special Diploma Medal, Sydney, 1879.
Gold Medal, Madrid, 1883.
Highest Prize Medals—London, Leeds, Manchester, and Wrexham.

(*See also Section I.*)

Hadley Brothers, Nail Works, Eyre Street, Birmingham.—Cut and Wire Nails of every description in Iron and Steel.



The "Mitre Cut Nail Works" were designed and erected with a view to command every convenience and facility to ensure order, regularity, rapidity, and economy in converting the raw materials into the finished Nail of commerce. Machinery combining every modern improvement adapted to the trade is to be seen there.

Fine Cut Rose, Clasp, and Clout Nails; Fine Cut Tacks, Shoe Bills, Tip Nails, and Wire Nails for Tea-chest making, &c., suitable for the Indian and other Eastern markets, have long been amongst the most important of the Firm's manufactures, which include:—

Clasp Nails	Chair Nails	Brush Tacks
Clout Nails	Shoe Bills	Glaziers' Points
Rose Nails	Hob Nails	Finishing Nails
Floor Brads	Tip Nails	Shoe Rivets
Lath Nails	Hungarian Nails	Boot Stubs
Coopers' Rose	Tingles	Wire Slate Nails
Coopers' Clout	Cut Tacks	Zinc Slate Nails
Box Nails	Charcoal Clog Nails	Copper Nails
Joiners' Brads	Gimp Pins	Copper Boat Nails
Sacking Nails	Coffin Pins	Plate Nails

Any description of Nails not mentioned above can be made to pattern or order.

BUYERS NOT ORDERING DIRECT FROM THE MANUFACTORY SHOULD BE PARTICULAR IN STATING THAT THEY REQUIRE THE "MITRE" MAKE, THE MANUFACTURES OF MESSRS. HADLEY BROTHERS BEING KNOWN BY THAT NAME ALL OVER THE WORLD.

The London Office is at 143, Cannon Street. Agents: T. E. Thomson & Co., Calcutta.

Heaton (Ralph) & Sons, The Mint, Birmingham.—Coins; Medals; Tokens; Brass and Copper Tubes; Sheets, Stampings; Spun Work; Wire.

Coins, Blanks, Metals, Medals, Dies and Mint Machinery manufactured by the Exhibitors have been supplied to the following Governments:—

GREAT BRITAIN,

INDIA,	CANADA,
NEWFOUNDLAND,	HONGKONG,
NOVA SCOTIA,	PENANG,
NEW BRUNSWICK,	SINGAPORE,
UPPER CANADA,	PRINCE EDWARD'S ISLAND,
MELBOURNE,	JAMAICA,
QUEBEC,	MAURITIUS,

JERSEY.

FRANCE,	ITALY,
TUSCANY,	SARAWAK,
TUNIS,	SERVIA,
CHILI,	BULGARIA,
ROUMANIA,	BORNEO,
BURMAH,	TRANSVAAL,
VENEZUELA,	SWITZERLAND,
URUGUAY,	BELGIUM,
PARAGUAY,	GERMANY,
NICARAGUA,	DENMARK,
ECUADOR,	SWEDEN,
COLOMBIA,	NORWAY,
HAYTI,	JAPAN,
SIAM,	BRAZIL,

SOOLOO.

Messrs. Ralph Heaton & Sons are manufacturers of

Brass and Copper Tubes (plain and ornamental);
Sheets, of various qualities;
Rolled Metals;
Wire (Brass and Copper);
Gas Fittings;
Gas Meter Fittings;
Stove Fittings;
Stampings and Stamped Ornaments;
Spun Work of all kinds;
Workmen's Checks and Tokens;
Metal for Cartridge Cases and Caps.

(*See also Sections A and D.*).

Holt, Box & Co., Dudley, Worcestershire.—Rim Locks and Latches; Mortice Locks and Latches; Drawback and Plate Locks; Rim and Mortice Dead Locks; Japanned and Galvanised Pad Locks; Iron and Mortice Gate Locks; Night Latches; Lever, Bramah, and Combination Latches; Brass and Iron Trunk Locks; Brass File, Cupboard, Chest, Lever Pad, Piano, Bureau, Wardrobe, Letter Case, Carpet and Leather Bag; Lever, Bramah, Detector, and Barron's Patent Locks; Norfolk, Suffolk, and Lancastrian Latches; T and other hinges, &c.

Hornsby (Richard) & Sons, Limited, Spittlegate Iron Works, Grantham, Lincolnshire (Agents for the Exhibition: Balmer, Lawrie & Co., 5, Clive Street, Calcutta).—Portable Engines.

Howorth (James), Victoria Works, Farnworth, near Manchester; and 147, Queen Victoria Street, London.—Patent Revolving Radial Screw Ventilators—Self-Acting or Driven by Motive Power—for Public Establishments, Infirmaries, Places of Worship, Barracks, Schools, Prisons, Theatres, Stables, Cattle and Sheep Sheds, Engine and Boiler Houses.

(*See Descriptive Notice.*)

Hudson (Robert), Gildersome Foundry, near Leeds.—Steel Trucks; Steel Wheelbarrows; Steel Casks; Steel Forges; Steel Portable Railway, &c.

(*See Descriptive Notice.*)

Humphries (E.), Pershore.—Portable Steam Engine; Vertical Engine and Boiler.

(*See Descriptive Notice.*)

Humphreys (J. C.), Albert Gate, Hyde Park, London.—Iron Buildings.

Hunt & Mitton, Oozell Street North, Birmingham.—Engine, Boiler, Water and Fire Fittings; Patent Lubricators and Hose Couplings.

Howorth (James) Victoria Works, Farnworth, near Manchester, and 147, Queen Victoria-street, London.—Patent Revolving Archimedean and Radial Screw Ventilators—Self-Acting or Driven by Motive Power—for Public Establishments, Infirmaries, Places of Worship, Barracks, Schools, Prisons, Theatres, Stables, Cattle and Sheep Sheds, Engine and Boiler Houses.

The Exhibitor, who has been established since 1858, calls attention to his Trade Mark, as above, no goods being genuine without it.

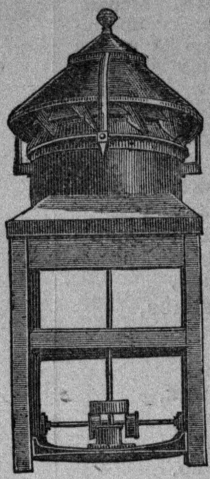
The Ventilators are of various sizes, suitable for all kinds of Public Buildings, Churches, Houses, Schools, Stables, and Works of every description. They secure perfect ventilation, without down draught; continue in good working order for eight or twelve years and upwards, without requiring any attention; and afford an effectual means for the ventilation of all kinds of buildings, and the Ventilation of Sewers.

Fifty-six Gold and Silver Medals and Diplomas have been awarded to the Exhibitor; these include Silver Medal and Diploma at Brussels, 1876; Medal, London, 1874; Gold Medal, Cape Town, 1877; Silver Medals from the Royal Agricultural Societies of England, Ireland, and Scotland; the Only Medal and Diploma for Revolving Archimedian Screw Ventilators, Paris, 1878; and Gold Medal at the Sydney Exhibition, 1879-80.

Besides the Awards above mentioned Forty Thousand Testimonials and References have been received for the successful Ventilation of Houses, Public Buildings, Sewers; the abstraction of hot and vitiated air, sulphurous gases, dust, steam, and smoke from all descriptions of Manufactories and Works.

Persons desirous for information in regard to a scientific and successful application to Buildings, Works, Sewers, &c., of the Revolving Archimedean and Radial Screw Ventilators, should apply to the Exhibitor, who is the Inventor and Sole Maker, and has had an experience of Twenty-five years in study and practice.

Three Ornamental Ventilators (Radial No. 2) have been erected on the Manockjee Petit Cotton Mills, Bombay.



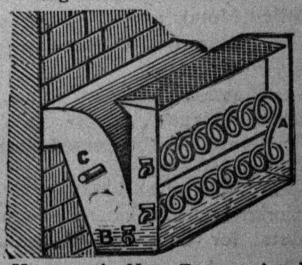
JAMES HOWORTH'S NEW PATENT RADIAL SCREW VENTILATOR, For Power Driving.

By the operation of the Archimedean or Radial Screw, a continuous up-current is produced, by which means hot vitiated air, steam, or dust is removed from the room, and the possibility of down draughts prevented, the two-fold advantage thus secured being thorough ventilation without draught.

The Ventilators are driven by a belt or strap running on pulleys affixed to the shaft of the Ventilator, and will abstract from 800 up to 20,000 cubic feet of air (charged with heavy dust, steam, or smoke) per minute each Ventilator, according to diameter. Thousands are working on every description of manufactory, and can be applied of sufficient power to change the entire cubical contents of air in a room from twice to forty times per hour. This powerful rate of exhaust is necessary for the abstraction of dense steam, smoke, or dust, and can be accomplished without any draughts being felt, by workmen, if applied according to directions.

LACY'S PATENT HUMIDIFIER AND AIR DISTRIBUTOR.

For Heating, Cooling, and Ventilating large Rooms and Works.



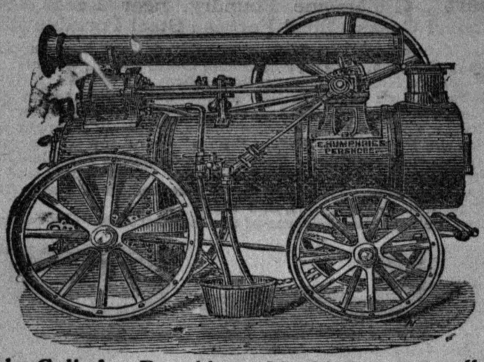
JAMES HOWORTH'S NEW PATENT AIR INLET, For Heating or Cooling and Moistening Air.

Hudson (Robert), Gildersome Foundry, near Leeds.—Steel Trucks; Steel Wheelbarrows; Steel Casks; Steel Forges; Steel Portable Railway, &c.

Upwards of 25,000 of the Trucks and Waggons, as exhibited, have been supplied to the South African Diamond Mines; American, Spanish, Indian, and Welsh Gold, Silver, Copper, and Lead Mines; Indian and Brazilian Railways; and to Railway Contractors, Chemical Works, Brick Works, and Coal and Mineral Shippers, &c. They can be made to lift off the underwork, to let down into the hold of a vessel, and are easily replaced. They are also largely used in Coal and other Mines in Great Britain, are the LIGHTEST, STRONGEST, and most CAPACIOUS made, infinitely stronger and lighter than wooden ones, and are all fitted with the Exhibitor's Patent "Rim" round top of waggons, requiring no rivets, and giving immense strength and rigidity. End and body plates are also joined on the Exhibitor's Patent method, dispensing with angle-irons or corner plates. The Trucks and Waggons can be made to any size, and to any gauge of rails. This system is patented in Europe, America, India, Australia, and British South Africa, 1875, 1877, 1878, 1881, and 1883.

The Registered Telegraphic Address of the Exhibitor is "GILDERSOME," LEEDS.

Humphries (E.), Pershore.—Portable Steam Engine; Vertical Engine and Boiler.



The 10-hp. Double Cylinder Portable Steam Engine and 3-hp. Vertical Engine and Boiler now exhibited are specially suitable for Electric Lighting, Irrigation, Pumping, Thrashing, Corn Grinding, Sawing, &c.

The Exhibitor, who is a manufacturer of Thrashing and other Agricultural Machinery, as well as of Engines and Boilers, has been awarded Prize Medals at the great shows in London, Paris, Vienna, and other important cities.

The Sole Agents of the Exhibitor are Messrs. Walsh, Lovett & Co., Commercial Buildings, Calcutta.

Jones Bros., Limited, Ayrton Rolling Mills and Nail Works, Middlesborough-on-Tees (Agents for the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta, and 17, St. Helen's Place, London).—Iron and Steel Boiler, Bridge, Ship, and Merchantable Sheets and Plates; Iron and Steel Nails.

BRANDS: "J. B. & Co." AND "AYRTON," and the "RAVEN," as shown above.

The exhibit merely shows samples of the various articles produced, the goods themselves being too bulky for exhibition, and includes:—

Plates and Sheets;
Welded and Flanged Work:
Samples of Nails.

Ship, Girder, and Boiler Plates and Sheets, in Iron and Steel, and Iron and Steel Nails of every description, are manufactured by the Company.

The production of Plates and Sheets for India and the Colonies receives their special attention.

During last year 3,000 tons were exported by them to these markets.

The Brand "J. B. & Co." represents the ordinary quality, and "AYRTON" a superior quality manufactured especially for the Indian and Colonial markets; "Best" and "Best Best" representing in each case, the highe qualities of each brand.

London Office: 11, King William Street, London Bridge.

Johnson (W. W. & R.) & Sons, 737, Commercial Road East, Limehouse; and 10, Fenchurch Avenue, London.—Tea Lead.

These Exhibits show the different descriptions of Tea Lead used for lining Tea Chests for *India*, *China*, *Japan*, and other Markets;

Pig of Lead from which the sheets are rolled;

Ingots of Prepared Lead from which the incorrodible surface is produced and plated on the soft lead;

Sheets of Incorrodible Lead, of which the Exhibitors were the originators;

Sheets of Bright Tea Lead;

Sheets of Fancy Lead made in imitation of the best description of Chinese lead.

Samples may be had at the Stand.

(See also Section F.)

Kennedy's Patent Water Meter Company, Limited, Kilmarnock, Scotland.—Water Meter Model with Glass Cylinders; Sectional Photograph.

Kerr, Tarruck & Co.—Enamelled Iron Sheets for Roofing.

(*See also Section F.*)

The Kirkstall Forge Co., Kirkstall Forge, Leeds.—Patent Rolled Shafting in Iron and Steel; Best Yorkshire (Kirkstall) Bar Iron; Forgings of all Descriptions in Iron or Steel; Butler's Patent Frictional Coupling; Patent Mail Axles; Smith's Anvils (warranted).

(*See Descriptive Notice.*)

Lee & Hunt, Arkwright Works, Nottingham.—Screw-Cutting, Sliding and Surfacing Lathes; Foot Lathes; Planing, Shaping, and Drilling Machines; Arkwright Combined Engine and Boiler.

The Exhibitors, who are CONTRACTORS TO HER MAJESTY'S INDIAN GOVERNMENT, manufacture Lathes, Planing, Shaping, Slotting, Boring, Drilling, Milling, Screwing, Punching and Shearing, and Plate-Bending Machines; Saw Benches and other Wood-Working Machinery, as also the "Arkwright" combined Vertical Engines and Boilers.

At the Sydney International Exhibition, 1879, Messrs. Lee & Hunt obtained a First Prize Medal, and at the Melbourne International Exhibition, 1880, a Special Certificate of Merit.

Illustrated Price Lists may be obtained upon application to the Exhibitors at the address above named; or from Messrs. P. W. Fleury & Co., 63, Dhurrumtollah Street, Calcutta.

Le Grand & Sutcliff, Magdala Works, Bunhill Row, London (Agents: J. S. Elmore & Co., Pollock Street, Calcutta). — Patent "Abyssinian" Tube Well and Pumps, with Improved Driving Apparatus.

Lindsay (W. H.), Paddington Iron Works, 14, South Side, Paddington Basin, London (Agents for the Exhibition: Oldham Bros., 5, Clive Street, Calcutta).—Flooring for Road and Railway Bridges.

Lloyd and Lloyd, Albion Tube Works, Birmingham; and Coombs Wood Tube Works, Halesowen, near Birmingham.—Wrought Iron Tubes and Fittings.

The Exhibitors' Firm was established in 1859, and its manufactures now include PLAIN and GALVANISED TUBES and FITTINGS, from ⅛ in. to 4 in. and upwards in diameter, for Gas, Steam, Water, &c. LAP-WELDED IRON and HOMOGENEOUS METAL BOILER TUBES, from 1½ in. to 7 in. in diameter. LARGE TUBES, welded by Patent Process, from 14 in. to 4 ft. in diameter, for Boilers, Flue Tubes, &c. WELL BORING and LINING TUBES. HYDRAULIC TUBES and FITTINGS proved to any required pressure.

Also, *Boiler Tube Ferrules, Gun-metal Steam Fittings and Gasfitter's Tools.*

The Exhibitors are Contractors to the Admiralty, and many Home, Foreign and Colonial Railway Companies, &c. Their London Offices are at 90, Cannon Street, and their Branch Warehouses at London, Liverpool and Manchester.

The following Exhibition Awards have been received by the Firm:—

Honourable Mention, London, 1862.
Silver Medal, Paris, 1867.
Special First Award, Sydney, 1879.
Silver Medal, Melbourne, 1880.
Gold Medal, Adelaide, 1881.

Warehouses: London, Liverpool, Manchester.

Lord (J. C. and W.), 142, Great Charles Street, Birmingham.—Iron Safes; Tea Garden Tools; Carriage Lamps; Lanterns; Locks; Hardware, &c.

Loudon Brothers, 111, Bothwell Street, and 80, Mains Street, Glasgow; and 156, Upper Thames Street, London.—Machine Tools; Steam Pumps; Mechanical Fittings.

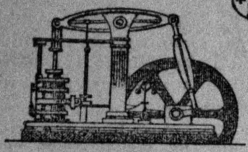
Low (David) (c/o MRS. ROBERTSON, George Street, Blairgowrie, Scotland).—Engineers' Hand Tools of Cast Steel.

Macfarlane (Walter) & Co., Saracen Foundry, Glasgow.—Castings.

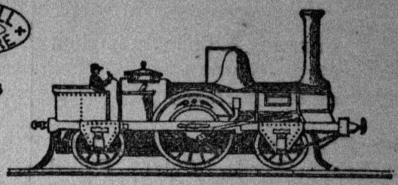
(*See Descriptive Notice.*)

Marsden (H. R.), Soho Foundry, Leeds. — Stone Breaker and Ore Crusher.

The Kirkstall Forge Co., Kirkstall Forge, Leeds.—Patent Rolled Shafting in Iron and Steel; Best Yorkshire (Kirkstall) Bar Iron; Forgings of all Descriptions in Iron or Steel; Butler's Patent Frictional Coupling; Patent Mail Axles; Smith's Anvils (warranted).



BRANDS FOR ENGINE IRON.



The Kirkstall Forge Company (established in the family of the present proprietary in 1779) have for many years past made a speciality of the manufacture of Round Iron for Shafting and general turning purposes, paying particular attention to cleanliness of material, roundness and straightness.

The Bars have a most extensive sale at home, and are very largely exported to India, all the British Colonies, and every other part of the World where iron is used, having been adopted by all Governments as well as by private users.

In the manufacture of Round Iron for turning purposes the Company have experimented in various ways with a view to improvement, and have perfected the process by which the Patent Rolled Shafting, as exhibited, is made. The result has been that, for all ordinary purposes, the Shafting, as now manufactured at the Kirkstall Forge, requires no turning, but is put into use without any further manipulation.

The Company are not Engineers, and do not undertake any finished work, but have brought out Butler's Patent Frictional Coupling, as being specially well adapted to couple the Shafting made at the Forge. This Coupling requires no keys, and consequently no swells at the ends of the shafts, the grip being obtained entirely by friction. No special fitting is required. A line of shafting may thus be put up with great ease and very little cost, as compared with turned shafting and flanged couplings.

The sizes of Patent Rolled Shafting exhibited range from 7-in. diameter down to ¼-in. diameter. The effect of this process on the iron is to increase the elastic torsional strength by 20 per cent. and the transverse strength by 33 per cent., as ascertained at Mr. David Kirkaldy's Testing Works, London.

The Company's Exhibit also includes specimens of ordinary rolled Best Turning Bars as ready for the lathe; Square Bars; Flat Bars; Tyre Bars; Shoe Iron; Cable Iron, and other sections; Railway Tyres and Axles in best Yorkshire Iron, and best Yorkshire Bars. Attention is directed to the quality of material employed, and the finish given to the iron.

Every Bar sent out bears the Company's brand. Nothing of an inferior quality is allowed to leave the Works, and no trouble is spared to ensure the most perfect uniformity.

Forgings in iron or steel are also made by the Company of the best material and finish.

The manufacture of Cart Axles and Patent Mail Axles is one of the Kirkstall Forge Company's specialities. For this an exceptionally well-arranged plant is employed. The Axles are all made to gauge and interchangeable, and warranted case-hardened.

The Smith's Anvils are made on the best principle, and faced with the best double shear Steel.

Prize Medals were awarded to the Kirkstall Forge Company at the following Exhibitions:—

London, 1851 and 1862 (Two each);
Moscow, 1873 (Two);
Vienna, 1873 (Two);
Kilburn, London, Royal International Agricultural Show, 1880;
Melbourne, 1880 (Three);
Adelaide, 1881;
New Zealand (Christchurch), 1882;
Toronto, 1882;
Buenos Ayres, 1882;
And Six at smaller Exhibitions;
Amsterdam, 1883, and Diploma of Honour.

In all cases the awards received were the highest given.

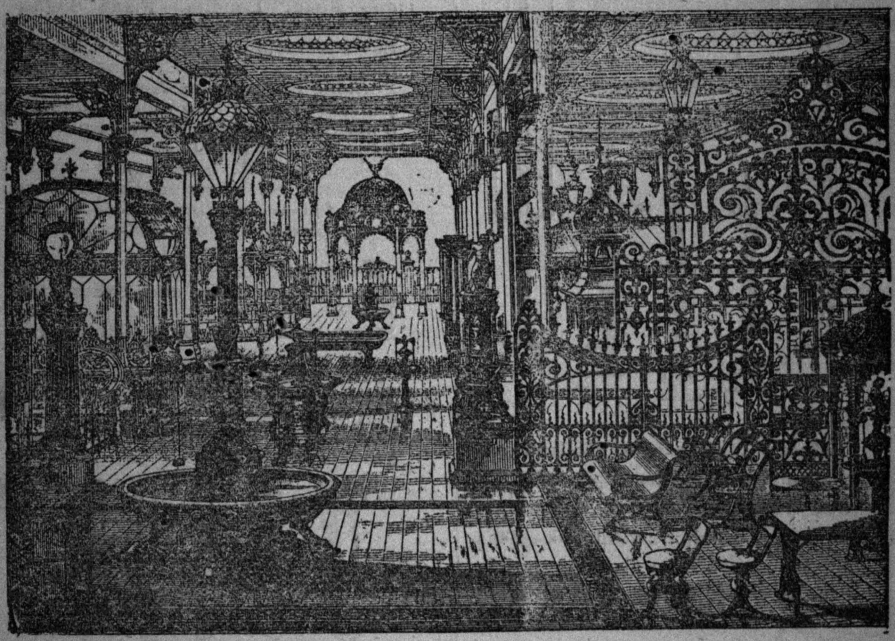
The Company did not exhibit at Philadelphia in 1876, or at Paris in 1878.

Macfarlane (Walter) & Co., Saracen Foundry, Glasgow.—Castings.

TRADE MARK ON

EVERY CASTING.

The Exhibitors are Architectural, Sanitary, and Engineering Art Founders. The Structural and Decorative Castings manufactured by them are applied to every kind of public and private buildings, railway stations, public thoroughfares, &c. Their Price List and Illustrated Catalogue, in 2 vols., contains 7,000 designs.



THE EXHIBITORS ARE CONTRACTORS BY APPOINTMENT TO HER MAJESTY'S WAR DEPARTMENT. THEIR MANUFACTURES INCLUDE:—

R. W. Pipes, Gutters, Ridging, Cresting, Terminals.

Railings, Tomb Railings, Gates, Panels, Balusters, Stairs, Balconies.

W. Hand Basins, W. Foot Basins, Urinals, Trough W. Closets, Trough Dry Closets, Dust Bins, Water Troughs, Baths, Pumps, Fountains.

Grand Stands, Entrance Canopies, Clock Towers, Belfries.

Garden Benches, Summer Houses, Band Stands, Pavilions, Kiosks, Arbours, Arcades, Porches, Vestibules, Porticos, Porches, Colonnades, Verandahs, Bridges.

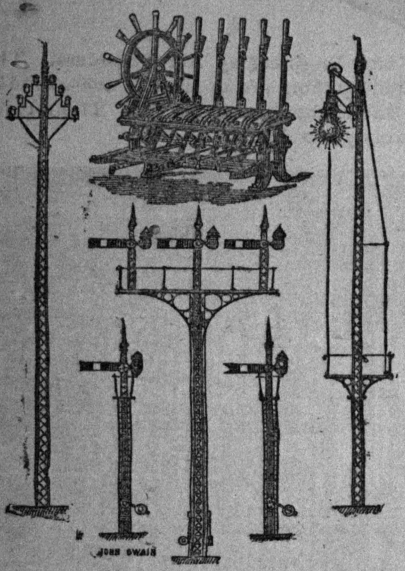
Building Fronts, Platform Roofing, Columns, Pilasters, Spandril Arches.

Enrichments, Sign Letters, Window Frames, Cupola Lights, Door Shades, Window Shades.

School Fittings, Lamp Pillars, Brackets.

PLAIN AND ORNAMENTAL CASTINGS OF EVERY DESCRIPTION.

McKenzie & Holland, Vulcan Iron Works, Worcester, England.—Working Models illustrating the interlocking and working of Points, Signals, and Level Crossing Gates on Railways.



Messrs. McKenzie & Holland are the patentees of the improved Railway Junction Locking Apparatus, Models of which are exhibited. This apparatus has been working nearly twenty years, having been adopted by the principal railways of the United Kingdom and the Colonies. More than 35,000 have been supplied and fixed and highly approved by the Inspecting Officers of the Board of Trade and Railway Engineers in general.

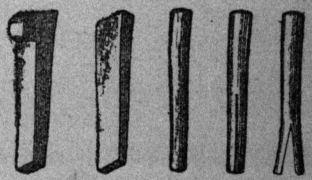
The Exhibitors are makers of Signals and Fittings of all descriptions, also special Wrought Iron Signals, Wrought Iron Electric Light Standards, and Wrought Iron Telegraph Wire Supports.

MacLellan (P. & W.), Clutha Iron Works, Glasgow. Chief Offices and Warehouses: 129, Trongate, Glasgow; 7 and 8, Great Winchester Street, London.—Engineers' Tools (Hand and Machine); Engineers' and Contractors' Furnishings; Steam Fittings; Railway Fittings; Chains; Rock Drills; Iron Roofing; Fish Plates, &c.
(See Descriptive Notice.)

Marshall, Sons & Co., Limited, Britannia Iron Works, Gainsborough; and Marshall's Buildings, 79, Farringdon Road, London.—Fixed Steam Engines; Portable Steam Engines; Sawing Machinery; 8-hp. Loco Multitubular Boiler for Tea Gardens; 10-hp. Portable Engine with Automatic Expansion; 4-hp. Portable Engine; 6-hp. Semi-Portable Steam Engine; 6-hp. Vertical Engine without Boiler; 2½-hp. Vertical Engine and Boiler complete; No. 2 Circular Saw Bench; No. 4 Self-Acting Circular Saw Bench.
(See Descriptive Notice.)

Massey (B. & S.), Openshaw, Manchester (Agents for the Exhibition: Balmer, Lawrie & Co., 5, Clive Street, Calcutta).—Steam Hammer.

Mills (Exors. of the late **James**), Bredbury Steel Works, near Stockport.—Headed or Plain Steel Keys, Taper Pins, and Split Steel Taper Pins for Locomotives.



The Headed or Plain Steel Keys, Taper, Stud, and Bracket Pins, Gibs and Cotters, as exhibited, have been supplied by the Exhibitors for many years to the principal engineers and machinists in the United Kingdom; they are made of a special mild steel, are finished bright, perfectly accurate and uniform in size, and can be made exact to patterns of any size or degree of taper, or to Whitworth gauge. They require no fitting and consequently effect a considerable saving in labour and files.

The Split Steel Taper Pins, are also bright finished and warranted more accurate and uniform in size than hand-turned pins, whilst only involving one quarter the cost. They have been adopted by nearly all the Railway Companies and Locomotive builders in the United Kingdom.

MacLellan (P. & W.), Clutha Iron Works, Glasgow. Chief Offices and Warehouses: 129, Trongate, Glasgow; 7 and 8, Great Winchester Street, London.—Engineers' Tools (Hand and Machine); Engineers and Contractors' Furnishings; Steam Fittings; Railway Fittings; Chains; Rock Drills; Iron Roofing; Fish Plates, &c.

This Firm has been established for over HALF A CENTURY.

As will be seen from the Specimens now exhibited, their Manufactures in General Engineering Appliances are of the most varied description.

Messrs. MacLellan have also devoted Special Attention to the construction of

IRON BUILDINGS AND ROOFS;

IRON AND STEEL RAILWAY CARRIAGES AND WAGGONS;

PATENT EMBOSSED STEEL SLEEPERS FOR RAILWAYS;

IRON BRIDGES; ROLLED AND RIVETED GIRDERS;

PATENT BUCKLED PLATES;

ALL KINDS OF FORGINGS, CHAINS, &c.;

BOLTS, NUTS, RIVETS, AND RAILWAY FASTENINGS;

ROCK-BORING MACHINERY (as used in the formation of the St. Gothard, and many other large Tunnels);

PATENT EXCAVATORS, for Steam or Hydraulic Power.

Another branch of their extensive business includes:—

SHIPBUILDERS' TOOLS (Heavy and Light);

MACHINE TOOLS FOR ENGINEERS AND BOILER MAKERS;

STEAM ENGINES AND BOILERS;

WOOD-WORKING MACHINERY;

AGRICULTURAL MACHINERY;

MACHINERY FOR GOLD, COPPER, TIN, LEAD, AND COAL MINES AND QUARRIES;

HAND AND STEAM POWER CRANES (Travelling and Stationary).

In addition to their large Manufactory, Messrs. P. and W. MacLellan possess most extensive Warehouses, where a vast Merchant Trade is conducted. In this Department there is always on hand an immense Stock of

AGRICULTURAL IMPLEMENTS;

HAND TOOLS AND FURNISHINGS FOR ENGINEERS, SHIPBUILDERS, AND CONTRACTORS;

INDIA RUBBER GOODS FOR MECHANICAL PURPOSES;

IRON, STEEL, AND WIRE NAILS;

IRON AND STEEL SHOVELS, PICKS, SPADES, HOES, AND MAMOOTIES, &c.;

RAILWAY AND SHIP LAMPS;

BAR IRON AND PLATES, STEEL, &c.

PIG IRON, Scotch and English (all brands).

The productions of the Firm are already well known in India, as elsewhere. Their Patent Embossed Steel Sleepers (Transverse and Bowl) have been largely adopted on many of the leading Indian Railways, while thousands of their Iron and Steel Carriages and Waggons are now in use on the same lines.

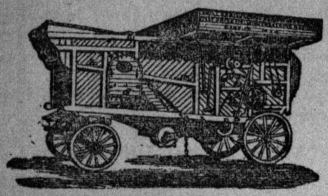
They have also supplied several of the Railway Workshops in India with Machine Tools and Fittings.

The Bolts, Nuts, Spikes, and other Railway Fastenings manufactured by the Firm are in great and increasing demand.

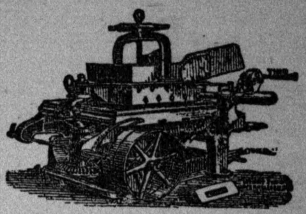
The Exhibitors have recognised the importance of employing only the most perfect and most approved appliances in the Manufacture of their productions, and have always availed themselves of the latest improvements. The greatest care is exercised to ensure everything being thoroughly satisfactory before any article is dispatched from the works.

MESSRS. P. AND W. MACLELLAN ARE CONTRACTORS TO H.M. HOME, INDIAN, AND COLONIAL GOVERNMENTS, AND ALSO TO MANY OF THE CHIEF FOREIGN GOVERNMENTS.

Marshall, Sons & Co., Limited, Britannia Iron Works, Gainsborough.—Tea Machinery; Thrashing Machinery and Corn Grinding Machinery, including:—"Excelsior" and "Universal" Tea Rollers; "Eureka" Tea Sifter and Tea Cutting Machine; Improved Steam Thrashing Machine; Double 3-ft. Corn Grinding Mill.



IMPROVED THRASHING MACHINE.



"EXCELSIOR" TEA ROLLING MACHINE.

Although the Thrashing Machine is at the present time comparatively unknown in India, its early introduction is a *sine qua non* to enable the grower to compete favourably with other corn exporting countries. The advantage of the Steam Thrashing Machine is not only in the rapidity with which it accomplishes its various operations, but also in its delivering the wheat cleaned and dressed ready for the market, thus saving labour and time, and producing the grain free from all foreign matter, in a bright uniform condition, thereby *enhancing its marketable value to a very considerable extent.*

Messrs. Marshall, Sons & Co. exhibit one of their IMPROVED THRASHING AND FINISHING MACHINES of the "A" Class, fitted with a drum 4-ft. wide. This Machine is of the type for which the Exhibitors received the FIRST PRIZE at the latest trials of the Royal Agricultural Society of England, in 1872, and embodies all the most recent improvements. It is of very compact design, all the working parts being fixed within the frame, and thus protected from the weather. The wearing parts are of a very simple character and not liable to get out of order. The machine, complete, is mounted upon wrought iron travelling wheels, and is easy of draught. The Machine exhibited requires but a small amount of power to drive it, the 4-hp. Portable Engines, with straw burning apparatus (described under Section G.) being adapted for this purpose, whilst the approximate quantity of wheat thrashed, with an average yield, is about 400 to 500 bushels in a day of ten hours. These Thrashers are constructed by the Exhibitors of various sizes and types to suit different requirements and countries.

CORN GRINDING MILLS.—The Corn Mill exhibited embodies many important advantages and improvements; it is fitted with two pairs of best French Burr Stones, each 3-ft. diameter, mounted in a strong cast iron continuous frame and suitable for producing fine flour.

TEA MACHINERY.—The tea industry has undoubtedly advanced with more rapid strides than any other in which India is concerned, and as there is practically no limit to which tea may be grown in this country, the introduction of suitable machinery for its manipulation is becoming daily of more importance. Messrs. W. and J. Jackson were amongst the first to devote attention to the designing of machines for this purpose, and with a thorough knowledge of the requirements and an extensive practical experience, have invented machines unsurpassed by any, for Rolling, Drying, Sifting, and Equalising the tea leaf.

Messrs. Marshall, Sons & Co. are the sole manufacturers of Messrs. Jackson's inventions, and exhibit a good assortment upon their stand. The new "EXCELSIOR" and "UNIVERSAL" Rollers are now well known in the tea districts, nearly 200 having been sold since their introduction in 1881. These machines embody precisely the same advantages in rolling as their well-known Standard Cross Action Roller, but the compound circular or eccentric action is obtained by a modified and simple crank motion, thus simplifying the machine, obviating all undue friction, and minimising the number of wearing parts. The rolling surfaces are entirely of wood, which prevents the tea coming into contact with iron during the process of rolling, and the top rolling plate can readily be turned over on the front slide bar, exposing the whole of the two rolling surfaces for cleaning.

The "EUREKA" Tea Sifting and Sorting Machine is a recent invention, but can safely be recommended to planters and others interested in Tea, as thoroughly efficient for the purpose for which it is intended. After a careful course of experiments it has been found capable of sorting from 20 to 28 maunds of tea per day, and two attendants only are required to feed and clean the meshes of the machine.

The apparatus consists of three sieves, each 11-ft. long by 2-ft. wide, placed over and parallel to each other, and are securely fixed by brackets at each corner, to which the springs it vibrates upon are secured. Three trays are placed under the sieves to convey the sifted teas to their respective discharge channels, or shoots, which deliver the assortments into chests, or other receptacles placed to receive them.

The Tea Cutter is a useful little machine, used principally for breaking or equalising the large Congou or old leaf, which is separated from the finer classes during manufacture. The space between the indented rollers can be so adjusted to reduce the leaf as may be desired for the market.

Agents for the Bengal Presidency:—Messrs. Balmer, Lawrie & Co., Clive Street, Calcutta, from whom catalogues and further particulars may be obtained.

(*See also Section G.*)

Milners' Safe Company, Ld., 28, Finsbury Pavement, London; Phœnix Safe Works, and 8, Lord Street, Liverpool; and Market Street, Manchester. - Fire and Burglar Proof Diamond and Jewellery Safes; Strong Rooms; Safe Deposits, &c.
(*See Descriptive Notice at end of this Section.*)

Moncrieff (John), North British Glass Works, Perth, Scotland.–Water Gauge Glasses for Steam Boilers.

Moreton (H.) & Co., 90, Cannon Street, London (Agents for the Exhibition: Maynard, Harris and Co.).—The "Wallace" Entrenching Tools.

Nasmyth, Wilson & Co., Limited. —Bridgewater Foundry, Patricroft, near Manchester. — Steam Engine for Hydraulic Presses; Models of Hydraulic Presses; Steam Hammer.

The collection exhibited by Messrs. Nasmyth, Wilson & Co. includes:—
Steam Engine for Hydraulic Presses;
3-cwt. Self-Acting Steam Hammer;
Models of Compound Hydraulic Packing Press;
3-Cylinder Packing Press;
Finishing Press;
Horizontal Press for Packing Jute or cuttings;
3-Cylinder Press for Packing jute, cloth, or other goods.
The Exhibitors are manufacturers of:—
R. WILSON'S PATENT HYDRAULIC PRESSES for packing Cotton, Flax, Hemp, Jute, &c., with direct-acting Steam Engines and Pumps, and all other apparatus requisite for packing cheaply and expeditiously;
STEAM ENGINES of every description;
IMPROVED PATENT STEAM HAMMERS from 2 cwt. to 70 tons;
Horizontal and Vertical BOILERS in Iron or Steel;
Travelling, Independent Pillar, Swing, and Pivot CRANES;
Mining and Iron Making Machinery;
Rolling Mills and FORGES;
Tools and Appliances for FOUNDRY, SMITHY, BOILER SHOP, MILLWRIGHT and General Engineering Work.
The Exhibitors guarantee the best workmanship and material.

Nettlefolds Limited, Birmingham; and Wellington, Salop.—Bar and Rod Iron; Rolled and Drawn Fencing Wire; Fencing Staples; Wire Nails &c.

The collection exhibited includes:—
BAR AND ROD IRON;
SPECIAL IRON AND STEEL BALING HOOPS;
ROLLED AND DRAWN FENCING WIRE;
BRIGHT AND ANNEALED WIRE, BEST AND TINMAN'S QUALITIES;
BOTTLING WIRE;
FENCING STAPLES;
WIRE NAILS AND PINS OF ALL KINDS;
OVAL WIRE NAILS.

Nettlefolds Limited, 16, Broad Street, Birmingham; Works: Berkley Street and Princip Street, Birmingham; Smethwick; King's Norton; Wellington and Ketley, Salop.

TRADE MARKS.

The manufactures of this Company include:—
Patent Pointed Iron Screws, Patent Pointed Brass Screws, and Patent pointed Copper Screws, for Wood;
Metal Thread Screws of all descriptions;
Screw Hooks, Screw Eyes;
Gate Hooks and Eyes;
Cotter Pins, Bright Bolts and Nuts; Set Screws; Handrail Screws; Coach Screws; Tyre Bolts and Nuts;
Tyre Bolts and Nuts; Rivets of all descriptions;
Patent Countersunk Clout Nails;
Ratchet Braces; Steam Lubricators; Pianoforte Furniture.

Newall (R. S.) & Co., Gateshead-on-Tyne.—Wire Ropes; Lightning Conductors; Iron, Steel, and Copper Cores.
(*See Descriptive Notice.*)

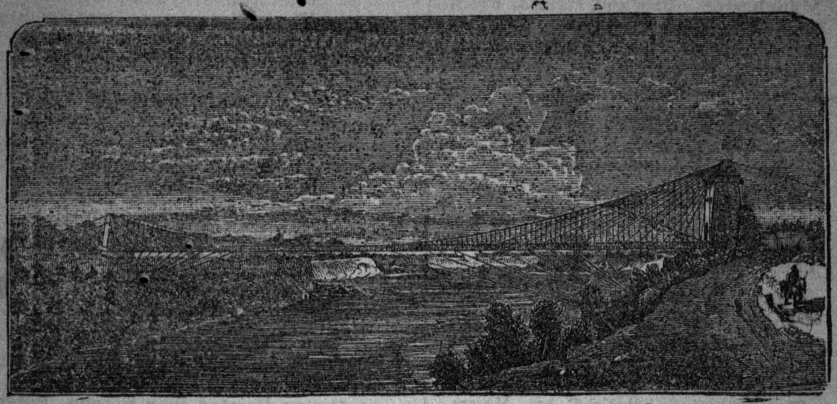
Newton (C.) & Co., Coventry. —Steam Engines.

Patent Nut and Bolt Company, Limited, London Works, near Birmingham; Stour Valley Works, West Bromwich; Cwm Bran Works, Blast Furnaces and Colliery, near Newport, Monmouthshire. — Bolts; Nuts; Rivets; Coach Screws; Washers; Telegraphic Iron Work; Set Screws, &c.
(*See Descriptive Notice.*)

Rawson Bros., Carver Street, Sheffield.—Tools.
(*See also Section D.*)

Newall (R. S.) & Co., Gateshead-on-Tyne.—Wire Ropes; Lightning Conductors; Iron, Steel, and Copper Cords.

NIAGARA SUSPENSION BRIDGE.



CONSTRUCTED OF WIRE ROPE MANUFACTURED BY MESSRS. R. S. NEWALL & CO.

Wire Ropes, as exhibited, were invented and patented by Mr. R. S. Newall in the year 1840, and are now in use in all parts of the world.

The invention consists in preventing the wires from being twisted whilst they are being laid round a core, which may be of hemp or other elastic material, and these strands are laid round a core also of hemp to form a rope. The Wires are thus kept at an equal distance from the centre, and consequently all equally strained, the greatest strength being thus secured.

Since the date of Mr. Newall's specification no improvement in his invention has been made, and his plans have been copied all over the world.

The Submarine Cable, which is simply a slight modification of a strand of wire rope, was also Mr. Newall's invention.

In this case the insulated telegraph wire forms the core of the strand or cable, which varies in weight from about a ton to ten or more tons per nautical mile.

Wire Rope is now used for all purposes to which hemp rope had been applied, and to a good many more. For instance Steam Ploughs could not have been used but for Wire Ropes. They are also used for Suspension Bridges, Ships' Rigging, and Tow Ropes, where they prove of signal advantage.

Cleopatra's Needle was towed from Egypt to England by one of Newall's ropes.

In Coalpits hundreds of men's lives have been saved by the substitution of Wire Rope for hemp rope or chains.

Having invented the Submarine Cable, Mr. Newall, after having laid the first eight or ten cables, invented the apparatus for laying them. This apparatus was first used in laying the cable to the Crimea, and in the opinion of Lord Lyons was the means of materially lessening the duration of the war.

Newall's Cable-laying Apparatus is the only one now used. It has been extensively pirated by other contractors, and has involved the inventor in heavy lawsuits to protect his rights.

Newall's Copper Wire Rope forms the best Lightning Conductor and one most easily applied to all buildings. In its manufacture, Copper of the greatest purity and highest conductivity is always used.

Patent Nut and Bolt Company, Limited, London Works, near Birmingham; Stour Valley Works, West Bromwich; Cwm Bran Works, Blast Furnaces and Colliery, near Newport, Monmouthshire.—Bolts; Nuts; Rivets; Coach Screws; Washers; Telegraphic Iron Work; Set Screws, &c.

TRADE MARK.

PRIZE MEDALS:—
London, 1862; *Paris*, 1867; *Vienna*, 1873; *Philadelphia*, 1876; *Paris*, 1878; *Sydney*, 1879; *Melbourne*, 1880.

The manufactures of this Company (who are CONTRACTORS TO HER MAJESTY'S and all the COLONIAL and principal FOREIGN GOVERNMENTS) include Pig Iron, Bar Iron, Railway Chairs, Fish Plates, Sole Plates, Fish Bolts, Fang Bolts, Spikes, and all other kinds of Railway and Tramway Fastenings; Cast and Wrought Iron Sleepers; Tie Bars; Gibs and Cotters; Wedges; Cast and Wrought Iron Fencing Posts and Standards; Straining Eye Bolts, &c. Also every description of Bolts and Nuts, Rivets, Set Screws, Coach Screws and Washers, Telegraphic and other Ironwork from Steel, Iron, Copper and Brass — black, bright, and galvanised, as used by Engineers, Railway Companies, Contractors, Ship Builders, Carriage and Wagon Builders, Telegraph Constructors, Agricultural Implement Makers, &c.

The Company have furnished most of the Fastenings used in the construction of railways in India, including the Indian State Railways, East Indian, Great Indian Peninsula, Bombay and Baroda, Madras, Scinde, Punjaub and Delhi, Oude and Rohilcund, South Indian, as well as for the most important railways in other parts of Asia, Europe, Africa, South America and Canada.

MACHINERY AND APPLIANCES of the most modern and approved description are employed by the Company, by whom every possible improvement is immediately introduced.

The FACILITIES FOR PRODUCTION of all sizes and descriptions of Bolts, Nuts, &c., are unrivalled; nearly 3,000 people are employed, and upwards of 4,000 tons of finished goods manufactured per month.

Patent Tram-Materials Co., Limited, 3, Westminster Chambers, Westminster, London (Agents at the Exhibition: Balmer, Lawrie & Co., 5, Clive Street, Calcutta).—Models of Permanent Way for Street Tramways and Light Railways, "Channel Rail" System.

(See Descriptive Notice.)

Peace (W. K. & C.), Eagle Works, Sheffield.—Files; Steel; Edge Tools; Hammers; Engineers' Tools.

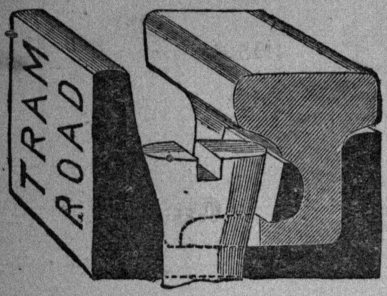
(See Descriptive Notice.)

Pearson and Knowles Coal and Iron Co., Limited (The), Dallam and Bewsey Iron Works, Warrington; Spring, Ince Hall and Hindley Hall Collieries, Wigan (Agents at the Exhibition: Sinclair, Hamilton & Co., 35, Clive Street, Calcutta).—Bars, Hoops, Sheets, Plates, and Wire Rods in Iron and Steel; General Engineering Work.

(See Descriptive Notice.)

Ramsden, Camm & Co., Brighouse, Yorkshire.—Iron and Steel Wire; Telegraph and Telephone Wire.

Patent Tram-Materials Company, Limited, 3, Westminster Chambers, Westminster, London.—Models of Permanent Way for Street Tramways and Light Railways, "Channel Rail" System.



The system is illustrated by the above section.

The rail proper rests on a continuous channel, of which one side forms the guard-rail, while its other side and bottom support the rail; the lower flange of the rail is notched out that it may be dropped vertically over the bolt head, after the bolt is in position, so that the actual rolling surface is economically renewed without disturbing the street.

The rail and channel break joint, therefore wherever the rail joint may occur the channel acts as a combined fish and joint plate, one tie-bar holding both rails securely in gauge. The tie-bars are formed of ordinary bar iron, notched to receive the channel.

The bolt passes through the timber or cement and grips it by means of a fang nut or anchor. The head of the bolt is a cone, which in descending fits into a similar coned space formed by the channel and a loose parallel key about two and a half inches long. Thus the force developed by screwing the bolt into the nut acts both downwards and laterally, thrusting the rail against the side and bottom of the channel and firmly gripping the longitudinal between the two. The bolts and nuts are of rustless iron.

THE PRIME COST OF THIS SYSTEM IS MUCH LESS THAN THAT OF ANY OTHER; THE POWER OF RENEWING THE ACTUAL WEARING SURFACE WITH LESS THAN HALF THE WEIGHT OF METAL, AND WITHOUT DISTURBING THE ROAD, GREATLY REDUCES THE COST OF MAINTENANCE, AND RENDERS THE SYSTEM ESPECIALLY SUITABLE FOR FOREIGN AND COLONIAL COUNTRIES.

AGENTS: MESSRS. BALMER, LAWRIE AND CO., CALCUTTA.

Peace (W. F. & C.), Eagle Works, Sheffield.—Files; Steel; Edge Tools; Hammers; Engineers' Tools.

REGISTERED TRADE MARK.

The Exhibitors are the sole makers of the celebrated Steel, Files and other Tools bearing the brand of an Eagle, as represented above. They are the sons and successors of the late Mr. CHARLES PEACE, who was selected by the Sheffield Manufacturers, and appointed by the Royal Commissioners for the GREAT INTERNATIONAL EXHIBITION IN LONDON, 1851, to be a Juror in Class XXI. for awarding Medals to the articles of merit in that Class. THE BUSINESS WAS ESTABLISHED IN 1710.

The Exhibitors have maintained the high quality of the goods attained by their predecessors, and their success has induced unscrupulous persons to imitate their marks and labels. Purchasers are cautioned against these imitations. The genuine goods can be obtained through all respectable Merchants and Shippers having established firms or Agencies in Great Britain.

Perks (J.) & Sons, Monmore Green Works, Wolverhampton.—Edge Tools; Pickaxes; Spades; Shovels; Axes; Adzes; Railway Tools.

(*See also Section I.*)

Pollock & MacNab, Britannia Iron Works, Hyde, near Manchester (Agents for the Exhibition: Ahmuty and Co., Church Lane, Calcutta).—Lathes; Drilling Machines.

***Price (George),** Cleveland Safe and Iron Works, Wolverhampton.—Steel and Iron Safes and Locks.

Priestman Bros., 52, Queen Victoria Street, London.—Dredger, Excavator, and Elevator.

(*See Descriptive Notice.*)

The Pearson and Knowles Coal and Iron Company, Limited, Dallam and Bewsey Iron Works, Warrington ; Spring, Ince Hall and Hindley Hall Collieries, Wigan.—Bars, Hoops, Sheets, Plates, and Wire Rods in Iron and Steel ; General Engineering Work.

The Specialities of this Company are :—

MERCHANT IRON in all its branches suitable for the Indian market, and consisting of

BAR and ANGLE IRON of all sections and in all sizes ;
BOILER and BRIDGE PLATES of all descriptions ;
SHEET IRON of all qualities, sizes and gauges ;
HOOPS of all sizes and gauges in Iron and Steel ;
WIRE RODS in Iron and Steel of all qualities.

The above are sold under the following Registered Trade Marks :—

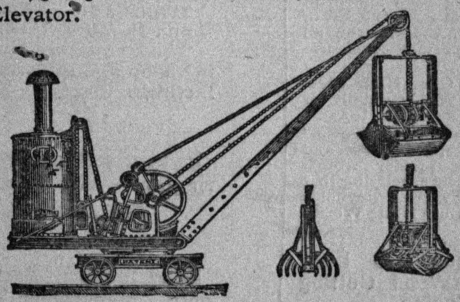
(P&F) "DALLAM" D "WARRINGTON". W.I.W

ENGINEERING PLANT of all descriptions, consisting of STEAM ENGINES, BOILERS, BRIDGE and RAILWAY WORK, and all classes of CASTINGS in IRON and BRASS.

COAL and COKE of all qualities suitable for Steam, Gas and Household Purposes.

The Iron Works have been established 35 years, and are the largest of their kind in the world, the average out-put being about 2,000 tons per week of finished iron.

Priestman Bros., 52, Queen Victoria Street, London. Works: Hull.—Dredger Excavator, and Elevator.



The Priestman's Patent Dredger, Excavator, and Elevator, which is very largely in use all over the world, consists of a large Self Filling and Discharging Scoop varying in design to suit different kinds of material, worked by a pair of Engines with vertical Boiler. This Machine is so simple that one man can work it with ease, and with proper care it seldom gets out of order. The Manufacturers make Machines of all sizes to suit almost any kind of work, and they can be worked either fixed upon a barge or hopper or from rails.

The Exhibitors are Contractors for H.M. Home and Colonial Governments, besides the Governments of India, France, Italy, Germany, Spain, China, Holland and many others. Orders have been received as follows: thirty-eight from Governments, forty-two from Dock Companies, forty-nine from Harbour Boards, seventeen from Railway Companies, sixteen for Rivers and Canals, thirty-seven from Public Companies, and eighty-eight from Contractors.

The Liverpool Dock Co. have recently ordered four of the Exhibitors' Dredgers, after using two for some time.

Prize Medals were awarded at Paris, Sydney, Melbourne, Adelaide, New Zealand, Tynemouth, York ; and at the recent Amsterdam Exhibition the Diploma of Honour.

Reading Iron Works, Limited, Reading (Agents for the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta). — Steam Engine and Nozzle Boiler Bullock Gears; Wrought Iron Split Pulleys.
(*See Advertisement.*)

Reynolds (F. W.) & Co., Acorn Works, Blackfriars, London.—Machinery for Wood Working, &c.; Engines.

Reynolds (John) & Sons, "Crown" Cut Nail Works, Birmingham.—Cut Nails and Tacks.

TRADE MARK.

This exhibit consists of a small number of samples of the many varieties and sizes of Cut Nails, Tacks, &c., manufactured by the Exhibitors, who obtained the ONLY PRIZE MEDAL for Cut Nails in the GREAT EXHIBITION OF 1851, and received an award at the Sydney Exhibition in 1879.

The quality and finish of the *fine cut Blue Tacks* manufactured by Messrs. John Reynolds and Sons have long been known in India, as also the fact that every Packet of Tacks sent out by the Firm contains the full number as labelled, an important consideration to the purchaser.

The fine cut Rose Nails, Clasp Nails, Steel Nails, &c., are made and packed specially for the Indian Market.

Buyers can always obtain the "Crown" Brand of Fine Blue Tacks, Fine Rose, and other Nails, at moderate prices, through Merchants and Indentors, by specifying that they are to be supplied by John Reynolds and Sons, "Crown" Cut Nail Works, Birmingham.

Robinson (Thomas) & Son, Limited, Rochdale.—Wood Cutting Machinery; Steam Engine.
(*See also Section I.*)

John Russell & Co., Limited, 145, Queen Victoria Street, London.—Tubes for Boilers; Chandeliers and Gas Fittings; Gun Metal Cocks, Valves, and Sanitary Brass Goods.
(*See Descriptive Notice.*)

Ruston, Proctor & Co., Sheaf Iron Works, Lincoln. — Portable Engines; Semi-fixed Compound Engine; Horizontal Engine; Centrifugal Pumps; Saw Bench with Boring Table.
(*See also Section I.*)

Richards & Atkinson, Bank Street, Royal Exchange, Manchester (Agents for the Exhibition; Balmer, Lawrie and Co., 5, Clive Street, Calcutta).—Light Wood Working Machinery (special).

This Collection of Improved LABOUR-SAVING MACHINES for Engineers' pattern and Joiners' shops comprises:—

IMPROVED DIMENSION SAWING MACHINE, so called because the pieces of wood can be cut to finished sizes, without planing;

HAND-FEED PLANING MACHINE;

Improved BAND SAWING MACHINE, with wrought iron sheaves or wheels;

COMBINATION MACHINE; and THICKNESSING MACHINE for estate purposes, and some smaller machines.

The Exhibitors also show some examples of improved LINE SHAFT FITTINGS.

Messrs. Richards & Atkinson make a specialty of the smaller class of labour-saving machines for working wood, such as:—

LATHES, BAND SAWS, JIG SAWS, CIRCULAR SAW BENCHES, MORTISING AND TENONING MACHINES, and PLANING MACHINES.

The Exhibitors guarantee the workmanship and material of their manufactures.

Rylands Brothers, Limited, Warrington.—Wire Manufactures.
(*See Descriptive Notice.*)

Schaffer & Budenberg, 1, Southgate, Manchester. — Valves; Injectors, &c.

Scott Brothers, West Mount Iron Works, Halifax.—Self-acting Sliding, Surfacing, and Screw Cutting Lathe; Vertical Pillar Drilling Machine; Power-geared Slotting Machine; Single Standard Steam Hammer.

Shanks (Alexander) & Sons, Dens Iron Works, Arbroath, Scotland; and 27, Leadenhall Street, London. — Steam Engines and Boilers.

Rylands Brothers, Limited, Warrington.—Wire Manufactures.

The Wire Manufactures of this Company, as now exhibited, include :—

BEST REFINED TELEGRAPH WIRE in long lengths without weld or joint ;

REFINED TELEPHONE WIRE suited for all electrical purposes ;

BEST BEST ANNEALED DRAWN FENCING WIRE of extra quality ;

BEST OVAL and ROUND STEEL FENCING WIRE of great strength ;

BEST GALVANISED DRAWN FENCING WIRE ;

BRIGHT and GALVANISED WIRE for manufacturing purposes ;

IRON and STEEL WIRE of all qualities for Rope Making ;

EXTRA FINE WIRES for Card Making and Weaving ;

STEEL SPRING WIRE for every description of Springs, Plain, Coppered, or Tinned ;

BOTTLING WIRE, Tinned, Galvanised, or Black ;

GALVANISED WIRE NETTING in every size mesh and gauge of Wire, any width, as used in Great Britain and the Colonies for Poultry Fences, Sheep Runs, Rabbit and Kangaroo Fences ;

BEST WIRE ROPES of SELECTED QUALITY and superior manufacture, for Ship's Rigging Ropes, Flexible Steel Cables and Hawsers, Colliery Pit Ropes in Iron and Steel, Flat or Round Ropes for Hoists, Inclines, Driving Machinery, and other work, Galvanised or Plain ;

GALVANISED STRAND in every size, for Railway Signals and Fencing ;

GALVANISED COMMUNICATION CORD, SASH CORD, PICTURE CORD, of every kind ;

LIGHTNING CONDUCTORS in Galvanised Iron and Copper ;

PATENT BARBED STEEL FENCING WIRE, SPELTER, &c.

The works produce about 25,000 tons of Wire manufactures annually.

Messrs. Rylands Brothers, the oldest firm in the trade in Great Britain, were formed into a Limited Company about fourteen years ago, with large capital and an influential body of directors. The Company are Contractors to the Admiralty and Postal Department of the British Government, English, Scotch, and Irish Railways, India Office, India State Railways, and Postal Department, Great Indian Peninsula Railway, Bengal Central Railway, Madras Railway, Bombay, Baroda, and Central India Railway, the Colonial Governments of Mauritius, Queensland, New South Wales and others, as well as the principal Railways and Telegraph systems in Canada, South America, Africa, United States of America, and nearly all European Countries.

Messrs. Sinclair, Hamilton, and Co. are the Company's Agents at Calcutta.

John Russell & Co., Limited, 145, Queen Victoria Street, London. — Tubes for Boilers; Chandeliers and Gas Fittings; Gun Metal Cocks, Valves, and Sanitary Brass Goods.

The Manufactures of this Company as now exhibited include:—

Wrought Iron Gas, Steam and Water Tubes and Fittings;

Lapwelded Iron, Steel, and Homogeneous Locomotive and Marine Boiler Tubes;

Hydraulic Press Tubes, Hot Water Tubes, Founders' Core Bars, Tuyère Coils, and Coils of every description up to 400 feet in one length;

Flush-jointed Artesian Well Boring Tubes; Stocks and Dies, Tubes, Vices, Wrenches, Tongs, and Pipe Cutters;

Chandeliers, Electroliers, Lobby Lamp Brackets and general Brass and Electric Light Fittings;

Doty Argand Burner;

Expanding Globe Holders

Simple Cocks and Valves;

Perpetual Self-closing Cocks;

Rose's Beer Cocks;

Rose's Metal Bung;

Favourite Cistern Ball Valves;

Domestic Dead Weight Kitchen Safety Valve.

Medals were awarded to the Exhibitors at Paris, 1855 and 1878; London, 1862; Dublin, 1865; Vienna, 1873; Sydney, 1880; New Zealand, 1882.

Manufactories: Alma Tube Works and Cyclops Iron Works, Walsall; the Old Patent Tube Works, Wednesbury; Belmont Chandelier Works, Birmingham. Depôts: London, Manchester, and Leeds.

Sharp, Stewart & Co., Limited, Manchester.—Machine Tools.

Agents: T. L. Thomson & Co. Calcutta.

Skidmore (H. P.), Atlas Tube Works, Netherton, near Dudley.—Tubes and Fittings for Gas, Steam, Water Boiler Locomotives and Sanitary purposes; Stocks; Taps; Dies; and other Smiths' Tools.

(See Descriptive Notice.)

Sinclair (James), 104, Leadenhall Street, London; and Cathedral Steps, Manchester.—Chemical Fire Engines, &c.

This collection includes:—

Dicks' celebrated Chemical Fire Engines, "Fire Queen," Nos. 4, 5, and 6;

Chemical Charges for same;

Dicks' "Express" Chemical Fire Engine, mounted on wheels, with supply of Chemicals;

Sinclair's Combined Chemical and Manual Fire Engine, with Chemical Charges and Suction and Delivery Hose;

Tyndal's Smoke Respirator (a person wearing one of these Respirators can penetrate dense smoke);

Martin's Hand Rotary Pump.

Agents in India, Messrs. LEDGER, SMITH & Co., 5, Commercial Buildings, Calcutta.

Smith (George) & Co., Sun Foundry, Glasgow (Agents in Calcutta: Walsh, Lovett & Co.).—Art Metal Work; Ironfoundry; Architectural and Sanitary Engineering Work.

(See Descriptive Notice.)

Smith & McLean, Clyde Galvanising Works, Govan Road, Glasgow; Gartcosh Rolling Mills, near Coatbridge, Scotland (Agents for the Exhibition: Balmer, Lawrie & Co., 5, Clive Street, Calcutta).—Galvanised Corrugated Iron.

(See Descriptive Notice.)

Sorby (I.) (now TURNER, NAYLOR & MARPLES), The Northern Tool Works, Sheffield. — Edge Tools; Engineers' Tools; Joiners' Tools; Planes; Hammers, &c.

(See Turner, Naylor & Marples.)

Sorby (Robert) & Sons, Sheffield. —Saws; Edge Tools, Steel; Files; Joiners' Tools, &c.

(See Descriptive Notice.)

Skidmore (H. P.), Atlas Tube Works, Netherton, near Dudley.—Tubes and Fittings for Gas, Steam, Water Boiler Locomotives and Sanitary purposes; Stocks; Taps; Dies; and other Smiths' Tools.

TRADE H P S N MARK.

This industry is not only important commercially, but one on which a great many others depend. The present extensive and complete systems of drainage, water and gas supply, could not have been carried out but for the existing means for providing tubes of all diameters at moderate cost and in unlimited quantities.

Tube Making has been carried on at the Atlas Works for about twenty-five years by the present proprietor, whose ancestors were engaged in this particular industry as far back as the year 1796. About 150 men and boys are now employed at the Works, where a large stock of finished goods is always kept ready for prompt dispatch of supplies immediately upon the receipt of orders. Before being warehoused all Tubes manufactured at the Atlas Works are tested by steam or hydraulic pressure.

Smith & Maclvan, Clyde, Galvanising Works, Govan Road, Glasgow; Gartcosh Rolling Mills, near Coatbridge, Scotland.—Galvanised Corrugated Iron.

The manufactures of this firm include:

GALVANISED CORRUGATED IRON SHEETS;
RIDGING, GUTTERS, AND FIXINGS;
STEEL AND IRON SHEETS;
SHIPPING TACKLE;
IRON TANKS AND CISTERNS;
METALLIC CASKS, DRUMS, AND KEGS.

The attention of Merchants and others is directed to the Trade Mark of the Exhibitors as illustrated above.

The Calcutta Agents of the Firm are MESSRS. BALMER, LAWRIE & Co.

Sorby (Robert) & Sons, Sheffield.—Saws; Edge Tools; Steel; Files; Joiners' Tools, &c.

REGISTERED TRADE MARK

The Edge Tools, Saws, Scythes, Sickles, Sheepshears, Steel, Files, and other Tools, as exhibited, bearing the "Kangaroo" brand, are manufactured exclusively by Messrs. Robert Sorby & Sons. They are well known in the Indian market, where the demand for them is increasing.

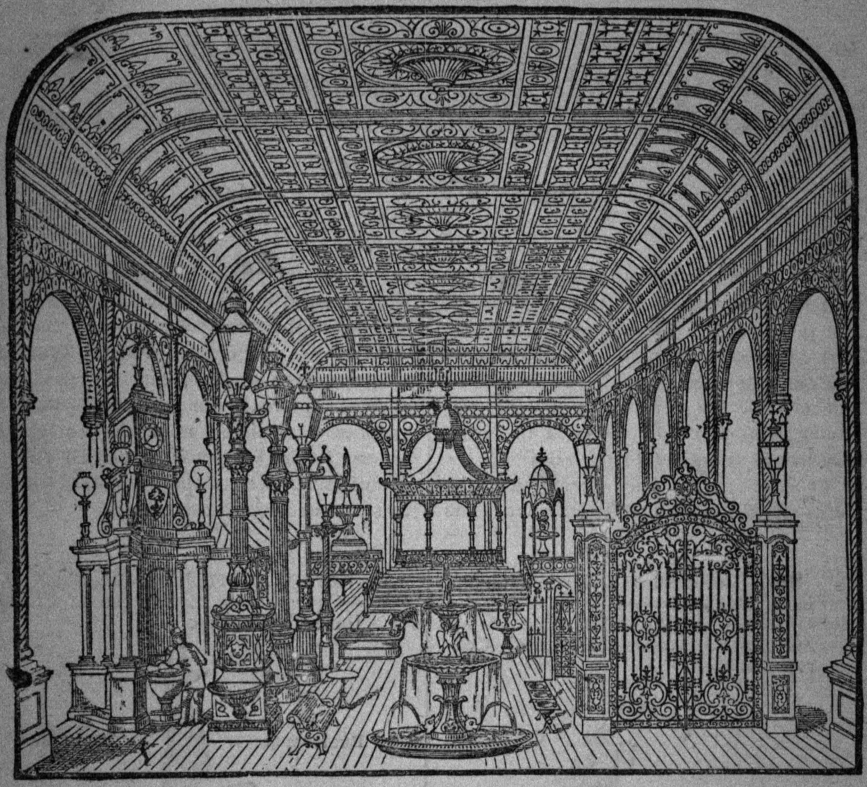
Purchasers should take care that the name "Robert Sorby" and the "Kangaroo" Trade Mark are stamped upon all goods sold as the manufactures of the Exhibitors, and to beware of imitations, which have been numerous.

Supplies can be obtained through all merchants and shippers having agencies in Great Britain.

THE EXHIBITORS ARE REPRESENTED IN THE EXHIBITION BY MESSRS. T. E. THOMSON & Co., 9, ESPLANADE ROW, CALCUTTA.

(*See also Section I.*)

Smith (George) & Co., Sun Foundry, Glasgow.—**Art Metal Work; Iron Castings**; Architectural and Sanitary Engineering Work.



Messrs. GEORGE SMITH & Co. are *Contractors to Her Majesty's War Department and Admiralty*; they manufacture Ornamental Castings for public and private buildings, in numerous and varied Designs, adapted to the requirements of every Style of Architecture.

Amongst the Specialities of the Firm are the following:—

BALCONIES.
BAND STANDS.
BATHS (ENAMELLED).
BELFRIES.
CEILINGS (ORNAMENTAL).
COLUMNS.
CONSERVATORIES.
CATTLE TROUGHS.
FOOT BRIDGES.
FOUNTAINS (DRINKING)
DO. (SPRAY).
GATES.
GARDEN SEATS.
GRAND STANDS.
KIOSKS.
LAMP PILLARS.
LAMP BRACKETS.
LAVATORIES.
MARKET STALLS.
PORCHES.
PILLARS AND PILASTERS.
PAVILIONS.
PLATFORM ROOFING.
RAILINGS.
RAIN-WATER CASTINGS.
SHOP FRONTS.
SPANDRIL ARCHES.
SPIRAL STAIRS.
STRAIGHT STAIRS.
SCHOOL FITTINGS.
STABLE FITTINGS.
STREET ORDERLY BINS.
TERMINALS.
URINALS.
VERANDAHS.
W.C. RANGES.

Illustrated Catalogue and Prices may be obtained upon Application.

Stiff (James) & Sons, London Pottery, Lambeth, London.—Battery Jars and Telegraph Insulators of all kinds in Vitrified Stoneware; also Porous Cells, Cylinders and Plates of varying degrees of resistance (porosity) to suit every kind of Battery.

Messrs. J. Stiff & Sons were awarded a Prize Medal for these goods at the Paris Electrical Exhibition, 1881. They are the only British Manufacturers and Exhibitors of these goods in the Vienna Electrical Exhibition, 1883-4.

The firm also Manufacture and Exhibit all kinds of Stoneware Chemical Apparatus, Plumbago Crucibles, Fire-Clay Crucibles, Muffles, Furnaces, &c. Their Chemical Apparatus and other goods have been supplied to the Royal Mint, Woolwich Arsenal, and many other departments, also to the United States, Italian, Australian and other Governments.

Messrs. J. Stiff & Sons are also Contractors for Battery Jars, Insulators, Porous Cells, &c., to H.M. Post Office, Government of India (Calcutta, Bombay and Madras), the Crown Agents for the Colonies, Cape of Good Hope, &c.

(Particulars of Architectural Terra-Cotta, Statuary, Art and General Stoneware will be found under Section D., and of Sanitary Stoneware, Sinks, Sewer-Air Traps, &c., under Section C.)

(See also Sections C. and D.)

Sorby & Turner (now TURNER, NAYLOR & MARPLES), The Northern Tool Works, Sheffield.—Edge Tools; Engineers' Tools; Joiners' Tools; Planes; Hammers, &c.
(See Turner, Naylor & Marples.)

Storer (Isaac) & Sons, Knott Mill, Manchester (Agents for the Exhibition: Ahmuty and Co., Church Lane, Calcutta). — Finished Brass Work.
(See Descriptive Notice.)

Tann (John), 11, Newgate Street, London.—Fire and Burglar Resisting Safes; Locks, Latches; Cash, Deed, and Dispatch Boxes.

Taylor Brothers, Adelaide Works, Sheffield.—Saws; Files; Steel; Tools for Wood-working and Paper-making Machinery; Sugar-cane Knives; Chaff Knives; Saw Mill Requisites, &c. Specialities: Patent Perforated Saws; Guide-lined Circular and other Improved Saws.
(See Descriptive Notice.)

Telegraph Construction and Maintenance Company, Limited, Offices: 38, Old Broad Street, London; Manufactories, Wharf Road, City Road, and East Greenwich.—Submarine Telegraph Cables; Gutta Percha Manufactures.
(See Descriptive Notice.)

Thomson & Co., 85, Gracechurch Street, London.--Patent Ship Sheathing; Enamel Roofing.

Thwaites Brothers (late THWAITES & CARBUTT), Vulcan Iron Works, Bradford, Yorkshire.—Steam Hammers; Engines; Root's Patent Blower and Exhauster; Blacksmith's Fire; "Vulcan" Portable Forge, &c.
(See Descriptive Notice.)

Turner, Naylor & Marples (late SORBY & TURNER), The Northern Tool Works, Sheffield.—Edge Tools; Engineers' Tools; Joiners' Tools; Planes; Hammers; &c.
(See Descriptive Notice.)

Storey (Isaac) & Sons, Knott Mill Brass and Copper Works, Little Peter Street, Manchester; and Cathedral Yard, Manchester.—Finished Brass Work.

TRADE MARK.

The Exhibitors have been established as Brass Founders, Finishers and Coppersmiths, since the year 1837. Their Exhibit includes:—

FINISHED BRASS WORK FOR ENGINE AND BOILER MOUNTINGS;

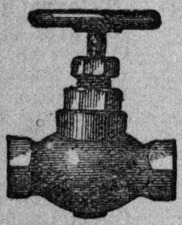
STEAM VALVES AND COCKS;

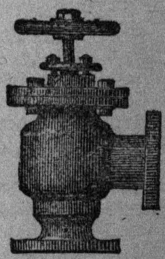
INJECTORS, PRESSURE GUAGES, WHISTLES;

MILL FIRE HOSE FITTINGS, &c.

IRON VALVES AND COCKS FOR GAS, WATER, SEWAGE, AND STEAM PURPOSES;

HYDRAULIC PRESS PUMPS FOR STEAM OR HAND POWER.





Messrs. Isaac Storey & Sons are also makers of GUN METAL and BELL CASTINGS of all descriptions for Engineers and Shipbuilders, either from patterns or drawings, up to two tons weight. LOCOMOTIVE HOME COVERS, FIREBOX CLOTHINGS, &c., form a speciality of the Firm in Coppersmiths' work.

PANS FOR COLOUR EXTRACTING AND MIXING, DYEING SILK, COTTON OR WOOLLEN GOODS, TO BE HEATED BY FURNACE OR STEAM; STILLS; CONDENSERS AND COILS OF COPPER PIPE for cooling or boiling are made and designed by the Exhibitors to suit specified requirements.

The attention of buyers and others is directed to the Trade Mark as illustrated here.

The Agents of the Firm at the Exhibition are Messrs. Ahmuty & Co., Church Lane, Calcutta.

Taylor Brothers, Adelaide Works, Sheffield.—Saws; Files; Steel; Tools for Wood-working and Paper-making Machinery; Sugar-cane Knives; Chaff Knives; Saw Mill Requisites, &c. Specialities:—Patent Perforated Saws; Guide-lined Circular and other Improved Saws.

Brands: "Taylor Brothers," "J. Taylor and Son," "J. & I. Taylor," "Adelaide Saw Works," "Melvin," "Adelaide," "Advance," and "Smithson."

The exhibit includes a gigantic Circular Saw of 7½ feet diameter, made of best Cast Steel by the most Improved Machinery;

Specimens of Patent Perforated and Guide-lined Circular Saws of 5 ft. diameter, besides a grand display of all kinds of Long and Short Saws of regular, improved, and entirely New Patterns—Pit Saws, Crosscut Saws, Mill Saws, all kinds of Web Saws, Hand, Back, Rule Saws, and many others;

Specimens of the Exhibitors' celebrated registered "Red Tang Files," Saw Fittings, Planing, Moulding and other Machine Irons, Paper Knives, Roller Bars; Chaff and Reaper Knives, &c.

In the Saw Department alone the firm employ about 200 hands, and having introduced from time to time every possible improvement in Machinery for rapid and superior production of their Goods, they can execute orders entrusted to them with the utmost dispatch.

First-Class Medals and Awards with Special Mention: *London*, 1851; *Paris*, 1855; *London*, 1862; *Vienna*, 1873; *Sydney*, 1880; *Melbourne*, 1881; *Adelaide*, 1882; *Christchurch*, 1882; *Cork*, 1883.

(*See also Section I.*)

Telegraph Construction and Maintenance Company, Limited. Offices: 38, Old Broad Street, London; Manufactories, Wharf Road, City Road, and East Greenwich.

1. SUBMARINE TELEGRAPH CABLES.

This case of specimens illustrates the progress and development of submarine telegraphy up to the present time.

The Cables from Europe to North America, Brazil, Egypt, India, China, Japan, Australia, New Zealand, South Africa, and other parts of the world, 71,000 nautical miles in length, have been laid by the Company across seas and oceans, varying from shoal water to 3,000 fathoms.

Many of these Cables have been grappled and brought to the surface from great depths, after many years' submersion, and successfully repaired.

2. GUTTA PERCHA MANUFACTURES.

This case contains specimens of insulated Conductors for Submarine Cables — Electric Lighting — Telephones — Subterranean Telegraphs and House Wires;

Joints in Submarine Cable Cores;

Gutta Percha sheet for joint making;

Samples of Willoughby Smith's patent joints, compound, &c.;

Specimens of Old Cables picked up after long submersion;

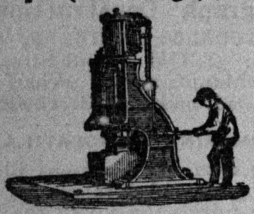
Battery cells and other electric appliances.

THE TELEGRAPH CONSTRUCTION AND MAINTENANCE COMPANY, it should be noted, was formed in 1864 by the amalgamation of Messrs. Glass, Elliott & Co. and the Gutta Percha Company. The latter were the first manufacturers of gutta-percha insulated core for submarine cables and land-lines.

Thwaites Brothers (late THWAITES & CARBUTT), Vulcan Iron Works, Bradford, Yorkshire.—Steam Hammers; Engines; Root's Patent Blower and Exhauster; Blacksmith's Fire; "Vulcan" Portable Forge, &c.

The Collection manufactured and exhibited by Messrs. Thwaites Brothers includes:—

3-cwt. Self-acting Steam Hammer and Stamper (new design);



No. 1. Root's Patent Blower and Duplex Engine combined (1883 Patent);

No. 1. Wrought Iron Improved Blacksmith's Forge, with Root's Patent Blower;

No. 4. Vulcan Portable Forge.

Agents for India: Oldham Brothers, 5, Clive Street, Calcutta.

(*See Advertisement.*)

Tyler (Hayward) & Company, 84 and 85, Upper Whitecross Street, London. — Fire Fittings; Pumps, as supplied to the principal Indian Railways; Engine and Boiler; General Brasswork for Houses.

(*See other entry in this Section, also Section D.*)

Tylor (J.) & Sons, 2, Newgate Street, London.—Diving Apparatus; Hot Air Engines; Electric Lighting; Pumps; Fire Engines; Brass and Gun Metal Valves and Fittings; Water Meters, &c.

(*See Descriptive Notice in this Section, also Section C.*)

Tyzack (Samuel) & Co., Monkwearmouth Iron Works, Sunderland. —Manufactured Iron for Shipbuilding, Engineering, and other purposes.

This exhibit includes sections of the various descriptions of iron made by the Firm, amongst which are specimens showing fracture and different tests.

The following is a list of the principal manufactures of the Firm:—

Angles, Bulbs, Bulb Angles;

Bar Iron for Shipbuilding, Engineering, and General Home, Colonial, and Foreign Blacksmith work;

Ship, Girder, and Boiler Rivets of every Description in Iron and Steel.

BRANDS:

S. T. & CO. ORDINARY,
S. T. & CO. REFINED,
S. T. & CO. CROWN,
S. T. & CO. BEST SCRAP.

SIZES:

ROUNDS $\frac{3}{16}$" to 5"

SQUARES $\frac{3}{16}$" to $4\frac{1}{2}$"

FLATS $\frac{3}{8}$" × $\frac{1}{8}$" to 7" × $1\frac{1}{2}$"

ANGLES $\frac{5}{8}$" × $\frac{5}{8}$" × $\frac{1}{8}$" to 6" × 4" × $\frac{11}{16}$"

Full Lists of other sections may be obtained upon application at the Stand in the Exhibition building.

London Office: 11, King William Street, London Bridge.

Walsh, Lovett & Co., Birmingham, Sheffield, and London; and Commercial Buildings, Calcutta. — Boilers and Engines; Bridges; Sections of Rolled Girders; Smith's Forges; Root's Blower; Bellows; Stocks and Dies; Lifting Tackle; Mill Furnishings; Iron Safes.

(*See Descriptive Notice.*)

Warner (John) & Sons, Crescent Foundry, Cripplegate, London; and Foundry Works, Walton-on-Naze, Essex.—Hydraulic and Pumping Machinery; Steam Engines; Wind Mills; Cattle Gears.

(*See Descriptive Notice.*)

Turner, Naylor & Marples (late SORBY & TURNER), The Northern Tool Works, Sheffield.—Edge Tools; Engineers' Tools; Joiners' Tools; Planes; Hammers; &c.

TRADE MARKS.

I. SORBY

I.S

The Exhibitors are makers on an extensive scale of Tools for Mechanics, Engineers, and Smiths, such as:—

CHISELS, GOUGES, SOCKET AND MORTICE CHISELS, PLANE IRONS;

AXES, ADZES, BILLS;

AUGERS, PLANES, BRACES AND BITS;

GIMLETS, SPOKE SHAVES, SQUARES;

RATCHET BRACES, STOCKS, DIES, TAPS;

SPANNERS, PLIERS, PINCERS, WRENCHES;

GAS-PIPE CUTTERS AND TONGS;

LIFTING JACKS, PULLEY BLOCKS;

ENGINEERS' AND SLEDGE HAMMERS;

SAWS, FILES, STEEL, &c.

Special attention is called to the Trade Marks, as illustrated above.

The Firm (formerly Sorby & Turner) was established in 1810.

Orders from Merchants and Shippers, if sent through their agents in England, are promptly attended to.

Messrs. Ahmuty & Co., Church Lane, Calcutta, are the Agents of the Firm for this Exhibition.

Walsh, Lovett & Co., Birmingham, Sheffield, and London; and Commercial Buildings, Calcutta.—Boilers and Engines; Bridges; Sections of Rolled Girders; Smith's Forges; Root's Blower; Bellows; Stocks and Dies; Lifting Tackle; Mill Furnishings; Iron Safes.

The 15 and 25 hp. Boilers and the 12-hp. coupled and 20-hp. single Engines were supplied for driving the machinery in this Exhibition. Attention is particularly requested to the style and finish.

The 20-hp. Engine is fitted with an exhaust steam injector which feeds the Boiler by means of exhaust steam only.

Two of the light Bridges erected in the grounds will show the simple and economical construction, permitting erection by unskilled workmen, no riveting being required.

(*See other Entries in this Section, also Sections D. & F.*)

West Cumberland Iron and Steel Company, Limited, Workington.—Materials used and products obtained in the manufacture of Bessemer Pig Iron; *Spiegeleisen*; Steel Rails; Plates; Steel Castings.

Whitecross Wire and Iron Company, Limited, Warrington, Lancashire. — Galvanised Wire; Rolled and Drawn Iron and Steel Wires; Telegraph and Telephone Wires; Galvanised Strand, &c.

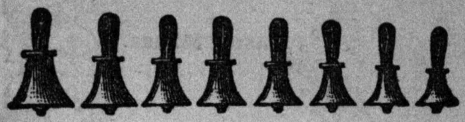
(*See Descriptive Notice.*)

Whitehead (John) & Co., Albert Works, Preston.—Lever Press for Bricks and Tiles.

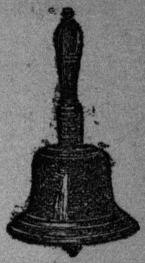
Whitehouse & Sons, Tipton Hall Works, Tipton, Staffordshire.—Anchors; Chains; Galvanised Sheets.

Warner (J.) & Sons, Crescent Foundry, Cripplegate, London; Foundry and Works, Walton-on-the-Naze, Essex.—Hydraulic and Pumping Machinery; Steam Engines; Windmills; Water Wheels; Turbines; Cattle Gears.

TRADE MARK.

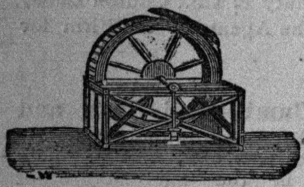


MUSICAL HAND BELLS.

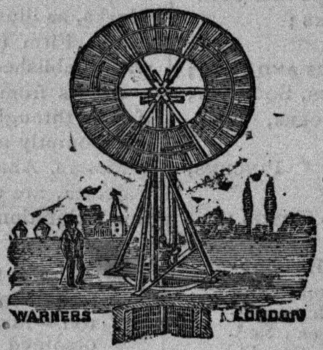


RAILWAY BELLS.

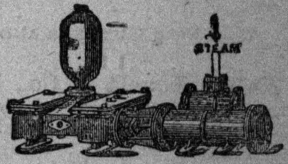
The Exhibitors are Bell and Brass Founders to Her Majesty the Queen of England and Empress of India, by special appointment. Their experience in the manufacture and hanging of church bells is well known in all parts of the world.



WATER WHEELS.

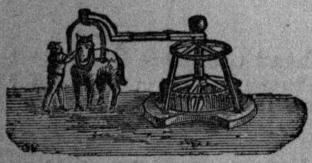


WINDMILLS.

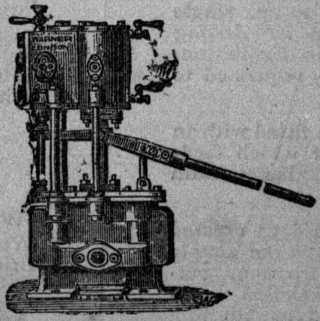


DIRECT-ACTION STEAM PUMPS.

Messrs. J. Warner & Sons manufacture all descriptions of Windmills, Water Wheels, Turbines, Steam Engines and Hydraulic Machinery for pumping, grinding, irrigation, estate work; also Mining Tools and Boring Machinery. They are Contractors to the Indian, Chinese, Spanish, Argentine, Russian and other Governments, the Admiralty and War Departments.



HORSE AND CATTLE GEAR.



STEAM PUMPING ENGINES.

PILLAR PUMPS.

Prize Medals have been awarded to the firm at the International Exhibitions of London, Nice, Arnheim, Vienna, &c. Illustrated priced catalogues may be obtained upon application.

Whitecross Wire and Iron Company, Limited, Warrington, Lancashire. — Galvanised Wire; Rolled and Drawn Iron and Steel Wires; Telegraph and Telephone Wires; Galvanised Strand, &c.

The Exhibitors conduct all the processes necessary for the production of Finished Wire from Pig Iron, thus securing absolute uniformity of quality. The Pig is treated in their Patent Rocker Puddling Furnaces and the rods are finished by their Patent Rolling Mills up to 1½ cwts. each in a single continuous unwelded length.

SPECIAL MANUFACTURES: Rolled and Drawn Iron and Steel Wires of every quality, Galvanised, Ungalvanised, and Varnished, for Fencing, Roping, Netting, and Nail making;

Telegraph and Telephone Wires of highest quality, as supplied under contract to the British and the Indian Governments;

Galvanised Strand Fencing, as supto the Indian Railways.

OFFICES: Liverpool, Glasgow, London (Agent: Jno. Abercrombie, 2, King William St., London Bridge. Head Offices: Warrington, Lancashire.

Whitfield (F.) & Co., (Proprietors of the Sicker Safe Co.), Viaduct Works, Oxford Street, Birmingham. —The "Sicker," and other Safes.

The "Sicker" Safe is the latest invention in this class of manufacture. It is drill, wedge, crowbar, picklock, fire and fraud proof. This safe is used by the leading bankers and jewellers in England, and by the Treasury at Whitehall, London. The slightly higher price of the safes exhibited over ordinary safes is more than compensated by quality.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Witt (George Pawsey), 30, Mark Lane, London. — Steam Engines; Boilers.

(See also Section I.)

Yates (John) & Co., Pritchett Street Works, Birmingham, and Exchange Works, Aston Manor, Birmingham.—Edge Tools, Plantation Hoes, Axes, Adzes, Picks, Hatchets, Matchets, Cast Steel Forks, Spades, Shovels, Trowels, Augers, Plane Irons, Hammers, Carpenters' Tools, Ship Scrapers, Caulking Irons.

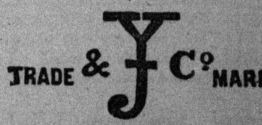
The manufactures of this Firm include Cast Steel Axes, Mining Picks, American Pattern Shovels. Also, Kodallie Hoes (of the well-known brand 1001), Elephant, Bull and Eagle, and Hoes of all other descriptions, Kodallie Forks, Assam Dhaws, transplanting Spades, and all other tools specially suited for Tea and Coffee Plantations for India, and other Tools for this and other markets, which are guaranteed by the exhibitors to be fully equal to any produced in America.

Messrs. Yates & Co. are Sole Proprietors of the "Birmingham Illustrated Catalogue of Edge Tools." They have been established in their own name nearly a century. When first entering upon the business, the trade and connection of two old-established firms, who had been noted as makers for many years previously, were acquired by them.

Their Illustrated Catalogue is most elaborate, and their Pattern Room contains the latest approved Patterns used in every market of the world. TO THIS THE ATTENTION OF FOREIGN BUYERS, WHEN VISITING ENGLAND, IS PARTICULARLY DIRECTED, as neither foreign representatives nor travellers are employed by the Firm. Every Implement is minutely examined by practical and experienced men before being exported, and very careful attention paid to the hardening and tempering, great care in the make and finish being useless unless attention be previously paid to those important matters.

The Cast Steel used is from Sheffield makers, who also supply American makers in large quantities.

Buyers desirous of securing Genuine Articles made from Electro-Boracic Cast Steel should take care that every Tool bears the Stamp, "Yates and Co., Aston Manor."



A complete list of Messrs. John Yates & Co.'s Trade Marks and Pattern Books, together with tools suitable for the Indian market, will be found in the Show Case now in the Exhibition Building.

(See also Sections D. and I.)

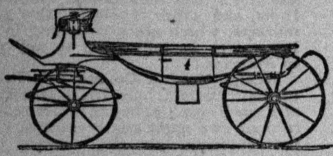
Berthon Boat Company, Limited, Aldersgate Street, London.—Works: Romsey, Hants.—Folding Portable Boats and Lifeboats.

Green (F.) & Co., 13, Fenchurch Avenue, London.—Model of Ship.

Yarrow & Co., Isle of Dogs, Poplar, London (Agents for the Exhibition: Balmer, Lawrie & Co., 5, Clive Street, Calcutta).—Steamer for Indian River Navigation (Model and Designs).

Adams & Richards, Bridge Street, Wednesbury.—Coach and Waggon Axles, Springs and Bolts.

Atkinson & Philipson, Northumberland Carriage Manufactory, 27, Pilgrim Street, Newcastle-upon-Tyne.—Carriages and Harness.



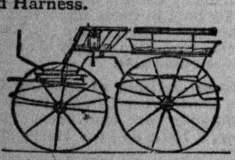
Messrs. Atkinson & Philipson exhibit a light Tilbury Gig with folding hood;

A fashionable Dogcart on American springs;

Specimens of hand-made Harness.

The Exhibitors, who are holders of Gold and Silver Medals, manufacture and export carriages specially constructed for India and other tropical climates, Cee Spring Landaus, Broughams;

Convertible Specials, Waggonette Phaetons, Dogcarts, Gigs and Buggies, Cape Carts and Harness.

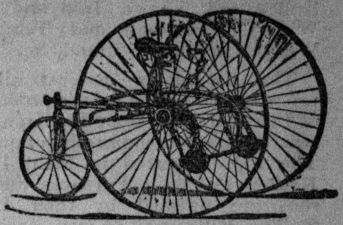


Messrs. Atkinson & Philipson are Contractors to Her Majesty's Government.

A Silver Medal was awarded to the Firm this year at the Amsterdam Exhibition.

Bristol Waggon Works Co., Limited, Bristol (Agents: Walsh, Lovett and Co., Commercial Buildings, Calcutta).—"Prince of Wales" Croydon Car; Parisian Phaeton.

Coventry Machinists' Co., Limited, Coventry.—Bicycles; Tricycles.



The Bicycles and Tricycles manufactured by the Coventry Machinists' Company, Limited, include the following:—

BICYCLES.

"Special Club," adapted for road work of all kinds, and embodying all the Company's Patented Specialities;

"Club," a roadster of the highest class;

"Universal Club," one of the latest productions of the Company, thoroughly reliable, and at a medium price;

TRICYCLES.

"Cheylesmore" (as ridden by H.R.H. The Prince of Wales), a rear-steering machine of the most perfect description, being a double driver, and fitted with the patent clutch action, which enables the rider to rest the feet on the pedals at will;

"Club," strong, useful, and elegant, in three sizes;

"Imperial Club," front steering, and double driving;

"Two-Track Imperial Club," intended to meet an increasing demand for a good two-track double driving Tricycle;

"Cheylesmore Sociable," a convertible Tricycle for carrying one or two riders.

The Company have Branch Houses in London, Manchester, Birmingham, Dublin, Frankfort-on-the-Main, Vienna, St. Petersburg, Melbourne, Sydney, Christchurch, New Zealand, New York, &c.

The Exhibitors are Makers by Appointment to H.R.H. The Prince of Wales.

Hillman, Herbert & Cooper, Premier Works, Coventry (Agents for the Exhibition: Maynard, Harris & Co.).—Bicycles; Tricycles.

Howes & Burley, Bishop Street, Birmingham.—Patent Hidden Socket Carriage Lamps.

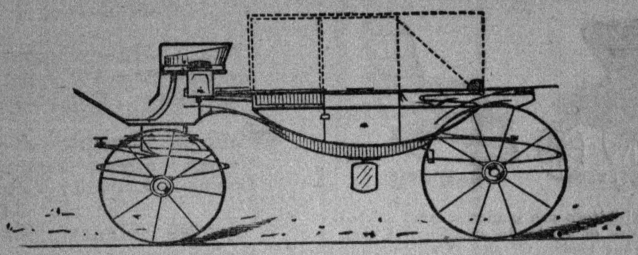
McEwen & Co., Abbey Road Works, Stirling, Scotland.—Perambulators; Bed Chairs.

(*See Descriptive Notice.*)

McNaught & Smith, Worcester; Liverpool; and 10, Park Lane, London.—Landaus; Harness.

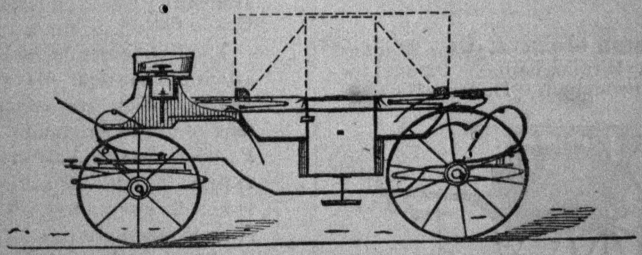
(*See Descriptive Notice.*)

McNaught & Smith, Worcester; Liverpool; and 10, Park Lane, London.—Landaus; Harness.



Many improvements have been introduced in Carriages by Messrs. McNaught and Smith.

The Landau as exhibited, and represented above, is a conspicuous instance. This design formed one of the features in the Carriage Department at the Paris, Sydney, and Melbourne Exhibitions. Though fitted with a glass front, giving *light* and *air* to the Carriage, the disposal of the windows and the opening of the head is so simple and secure in its action as to meet every requirement, and to ensure perfect quiet and solidity when closed.



The above illustration is that of a Landau hung upon a Steel perch with "C" Springs and Braces. Nothing can exceed the luxurious ease thus provided, which is combined with a degree of lightness by the use of a ductile quality of steel specially supplied to the Firm by Sir Joseph Whitworth and Co. Both of the Carriages referred to are fitted with the Automatic Head, and are most completely and elegantly furnished in every detail.

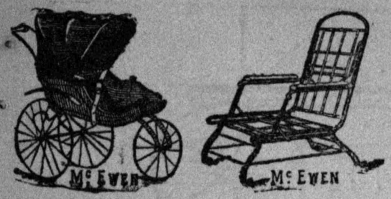
Messrs. McNaught and Smith are well known in India and other countries for the suitability and durability of their carriages, a result obtained by a careful study of all special requirements, and the use only of such materials as are thoroughly seasoned and adapted to the climate.

Gold and Silver Medals have been awarded to the Exhibitors at the following International Exhibitions:—

London, 1862; Paris, 1867; Philadelphia, 1876; Paris, 1878; Sydney, 1880; Melbourne, 1881.

Further information may be obtained upon application to the Agents, Messrs. **Ledger, Smith & Co.,** Calcutta and London.

McEwen & Co., Abbey Road Works, Stirling, Scotland.—Perambulators; Bed Chairs.



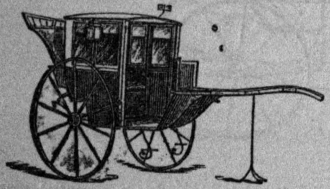
The Exhibitors are manufacturers of Invalid Chairs of all kinds, and Chair, Camp, and Cabinet Beds. Of the Perambulators they make only a few are shown, as samples of style and finish and suitability for warm climates.

Every Machine is guaranteed.

Price Lists, Wholesale Terms, and other information may be had from the Exhibition Agents (Messrs. J. M. Johnson and Sons, Limited), or of the Exhibitors direct, home references being required in such cases.

Marshall, Sanders & Co., Aston Coach Iron Works, Wharf Road, Birmingham.—General Coach Ironware.

Marston (John) & Co., Bradford Street, Birmingham. — Patent Imperial Brougham "Hansom" Cab.



The Patent Hansom Cabs as exhibited are warranted to stand in any climate. They are comfortable, and free from draught and damp. Ordinary cabs, on the contrary, are incommodious, damp, and draughty. The Patent Hansom Cabs are consequently superseding the ordinary cabs, and are likewise being used by the nobility in place of heavy carriages.

At the option of the rider the Patent Hansom may be used as an open or close carriage. It can also be driven from the inside. Owing to the system of hanging adopted, scarcely any motion is felt by the rider, and the balancing is such as to cause no weight to be thrown on the horse's back.

The Sole Agents for India are Messrs. Walsh, Lovett & Co., Commercial Buildings, Calcutta.

Maynard, Harris & Co., 126 and 127, Leadenhall Street, London.—Bicycles; Tricycles.

(*See also Section E.*)

Neale (James) and Son, 68, Graham Street, Birmingham.—Carriage Lamps; Coach Furniture.

Offord (Joseph) & Sons, 67, George Street, Portman Square, London.—Landau; Victoria.

Rogers (Henry), Sons & Co., Wolverhampton. (Agents for the Exhibition: Stewart, Stewart and Co.).—Carriage Axles and Springs.

Rucker (M. D.) & Co., Letchford Buildings, Bethnal Green, London (Sole Agents for India: Maynard, Harris & Co.).—Bicycles; Tricycles.

Selby (Frederic) & Co., Longmore Street Works, Birmingham.—Carriage and Cart Axles; Springs; Ironwork; Carriage Lamps; General Coach Goods in Metal.

The Exhibitors desire to call special attention to their PATENT SAFETY AXLES, which are coming into extensive use in England; also to their PATENT SHAFT ADJUSTER; REGISTERED BOXING MACHINE; REGISTERED STAMPED STEP TREADS; PATENT RUBBER-COVERED TREADS; and to the superior make and finish of their LAMPS, COACH WORK, IRON WORK, and GENERAL MANUFACTURES.

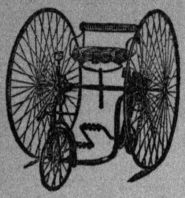
Singer & Co., Coventry.—Bicycles and Tricycles.

(*See Descriptive Notice.*)

Sparkbrook Manufacturing Co., Limited, Coventry (Sole Agents for India: Maynard, Harris and Co.).—Tricycles.

Vezey & Co., Bath, Somersetshire.—Victoria, with Patent Self-Acting Hood; Stanhope Phaeton with shifting head; Dog Cart, with Patent Fulcrum to avoid knee motion.

Singer & Co., Coventry. — Bicycles and Tricycles.



The manufactures of this Firm consist of Bicycles and Tricycles of numerous patterns, suited to various purposes.

THE BRITISH CHALLENGE Bicycle contains all the patented improvements of the Firm, and is specially strong for road work.

THE ROYAL CHALLENGE is also a roadster of high quality but less elaborate finish.

THE "XTRAORDINARY" CHALLENGE is a Bicycle for those who require additional safety as well as speed, and it is also very easy to mount.

YOUTHS' Bicycles and Tricycles of various kinds are made by the Exhibitors.

THE APOLLO TRICYCLE is made to carry one or two riders. It contains all the patented improvements in Tricycles belonging to the Firm, and it is adapted for either ladies or gentlemen.

THE TANDEM is capable of conversion from a double to a single Tricycle, so that it may be ridden by either one or two persons.

THE CARRIER is a Tricycle to carry two, three, or four persons, one or two of whom propel the Tricycle. It is also used for carrying goods, &c.; a weight of 150 lbs. being propelled by one person.

THE VELOCIMAN is a Tricycle driven by hand, with foot-power if needed, and is intended for the use of persons unable to walk.

TRICYCLES of other kinds are also made, such as Folding Tricycles, Tricycles adapted to Special Purposes, and Fittings and Appliances of all kinds connected with Bicycles and Tricycles.

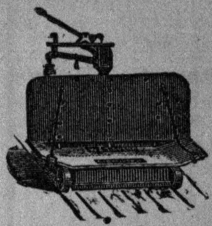
Show rooms at London, Liverpool, Leeds, Newcastle, and Glasgow.

Figgins (V. & J.), Clerkenwell, London.—Printing Type.

Greenwood & Batley, Albion Works, Leeds.—Sun Patent Platen Printing Machine.
(*See also other Entry in this Section.*)

Ullmer (Frederick), Cross Street, Farringdon Road, London (Agents for the Exhibition: F. Harley & Co.).—Printing and Paper Cutting Machinery.
(*See Advertisement.*)

Avery (W. & T.), London and Birmingham. — Weighing Machines for Chemical Works, Tanneries, and Hide and Skin Markets.



The Machines, as illustrated, are made specially for weighing hides and skins. They are constructed entirely of iron with steel bearings, also with relieving apparatus and extended platform, chains and hooks, and brass steelyard with galvanised iron weights.
(*See other Entries in this Section, also Sections B., C., D. and I.*)

Dickinson (William) & Sons, Phœnix Iron Works, Blackburn.—Weaving Machinery.

The Weaving Machinery as exhibited by Messrs. William Dickinson and Sons comprises:—

The "BLACKBURN" or "OVERPICK" LOOM, the invention of the Exhibitors;

SIZING MACHINES (of which they are the original makers);

LOOMS of various strengths for weaving Cotton, Linen, Worsted, or Woollen goods;

SLASHER SIZING MACHINES;

WINDING AND WARPING MACHINES;

HOT AIR SIZING MACHINES, on Dickinson and Whitehead's Patent;

All kinds of DOBBIES for figured goods;

PLAITING AND MEASURING MACHINES;

HYDRAULIC CLOTH PRESSES.

These various machines are from entirely new patterns and combine all the most recent improvements.

The Exhibitors are sole makers and patentees of Dickinson and Rossetter's Patent Beam Press Motion, now securing universal adoption in Lancashire. Plans and estimates of cotton mills for either spinning or weaving, or both, can be obtained free of cost upon application to the Exhibitors.

The firm were established in 1826. At the Great Exhibitions of London and Manchester, Prize Medals were awarded in respect of the objects exhibited by them.

Harding (T. R.) and Son, Tower Works, Leeds.—Wood Legs and Filleting for Jute Cards and Cotton Waste Openers, &c.; Steel Pins for Cards, Gills, and Hackles; Counters and Speed Indicators for Engines and other Machinery.

Huxham & Browns, Exeter (Agents for the Exhibition: Balmer, Lawrie and Co., 5, Clive Street, Calcutta). — Tanners' Machinery; Belt Making Machinery.

Irvin & Sellers, Preston and Liverpool. — Bobbins and Shuttles used in Spinning and Weaving Cotton, Flax, Silk, Wool, &c.

Molinier (Charles) & Co., Limited, 52, St. Mary Axe, London.—Machinery for dressing and manufacturing Leather.

Rawlings (S.) & Son, South Parade Works, Frome, Somersetshire.—Card Clothing.

The Exhibitors are makers of—

CARDS of all kinds in LEATHER, CLOTH, or RUBBER Backs, with IRON or TEMPERED STEEL WIRE, round or flattened, for CARDING COTTON, WOOL, or other FIBROUS MATERIALS;

LEATHER BELTING of very superior quality.

The Exhibitors are also GENERAL MILL FURNISHERS.

Quotations for any Machine or Article required by Millowners are given upon application.

The firm is one of the oldest, if not the oldest, in this particular branch of business, the Trade having been carried on in the family of the present proprietors for upwards of Two Hundred years.

MESSRS. S. RAWLINGS & SON WERE THE ONLY FIRM SELECTED TO EXHIBIT CARD CLOTHING AT THE INTERNATIONAL WOOLLEN TRADES EXHIBITION AT SOUTH KENSINGTON, LONDON, 1872.

(*See also Section F.*)

Wilson Brothers, Cornholme Mills, Todmorden; and 14, Market Place, Manchester.—Bobbins, Tubes, and Skewers, for spinning and manufacturing Cotton and other Fibres.

Law (Samuel) & Sons, Moorland Mills, Cleckheaton, Yorkshire.—Cotton, Woollen, Worsted, and Silk Card Clothing; General Mill Furnishing.

The manufactures of this Firm include:—

CARD CLOTHING for Cotton, Wool, Silk and Flax, made on foundations of India Rubber, Cotton Cloth, Woollen Cloth and Leather, and with Swedish Iron Wire.

Homogeneous Steel or Special Metal Wire and Cast Steel Wire hardened and tempered by a new patented and improved process.

Messrs. SAMUEL LAW & SONS are the Patentees and sole makers of the Rolled Double Convex Wire Card Clothing, which has been extensively used and found far superior to the ordinary round wire Card Clothing for Carding all kinds of Fibrous Materials.

In the application of this wire, the Card Clothing requires less frequently grinding than round wire, and, on account of the fineness of the points produced, it gives better and clearer carding and makes less fly.

The Card Clothing made by the Exhibitors is used by the following firms, viz.:—

Messrs. Garden, Reach and Goosery Mills, Calcutta;

Anglo-Indian Spinning Company, Bombay;

Coorla Spinning and Weaving Company, Coorla;

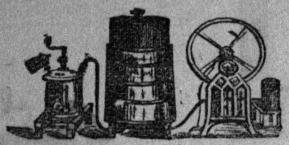
Runchorelal Chotalall and Madhowlal Runchorelal, Ahmedabad, and many other mills in India. It is also largely used in Great Britain and Ireland, and exported to all the different countries of Europe, the British Colonies, America and Japan.

The Firm was established in 1809 by Mr. JOHN LAW, who was a very noted maker of Card Clothing, and carried on the business successfully until 1851, when it was transferred to its present proprietors, under whose care and management it has grown to be the largest manufactory in the trade.

This firm has also a special department for Mill Furnishings, and all orders entrusted to them will receive their careful and prompt attention.

Atmospheric Churn Company, 119, New Bond Street, London (Agents at Exhibition: Maynard, Harris and Co.).—Ice Freezing Machines and Refrigerators.

Barnett & Foster, "Niagara" Works, 26, Eagle Wharf Road, London.—Soda Water Machines; Filling Machines; Patent Bottles; Syphon Bottles.



The Soda Water Machinery, as exhibited, has all the most modern improvements, and is known as the "Prize Medal Continuous Acting," and has been in use for many years. It is similar to that supplied to most of the Manufacturers of Mineral Waters in India. More than a thousand are in use there. Nearly every regiment in India has been supplied with similar Machines for manufacturing Mineral Waters. The sole and undivided attention of the Firm is given to this business, and buyers get the benefit of a long practical experience extending over nearly forty years.

The different Filling Machines exhibited will not only fill most expeditiously, but produce highly charged gaseous drinks, and the whole system of manufacturing Aërated Waters is so complete and simplified that skilled or technical knowledge is not required, and with the Book of Recipes and instruction issued by the Firm Aërated Waters of the highest class can be produced by any one.

Illustrated Catalogues are forwarded free on application.

(*See also Sections D. & H.*)

British Syphon Manufacturing Company (EUGSTER & KOERTGEN, Proprietors), 2, Gresham Buildings, Basinghall Street, London.—Syphons and Seltzogenes.

Hall (J. & E.), 23, St. Swithin's Lane, London.—Cold Air Machine for preserving food on passenger ships.

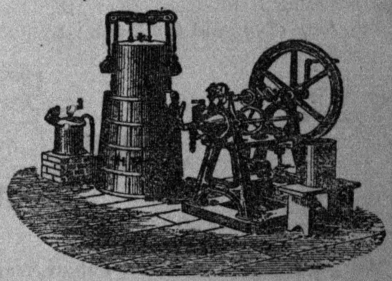
Schreiber (Frederick William), 5, Bond Court, Walbrook, London.—Metallic Capsules; Tinfoil; Capsuling Machines; Corking Machines.

Braby & Hinchliffe, Sandford Street, Ancoats, Manchester.—Soda Water Machinery and Appliances; Bottling Machines; Packing Cases.

The Soda Water Machinery now exhibited is made on the English or direct continuous system. This system is considered to be the cheapest and best as well as the simplest and surest in action. By means of the Rapid Paragon Turnover Filling or Bottling Machine, patent-stoppered bottles of any kind can be filled at the highest speed. More than a thousand of these machines have been exported to different parts of the world, including South Australia, New Zealand, China, British Burmah, Cape Colony, and India. The cases as shown are specially adapted for export. They are printed with the purchaser's name, dovetailed, hooped, partitioned, and varnished.

(*See also Sections D. & H.*)

Tyler (Hayward) & Company, 84 and 85, Upper Whitecross Street, London.—Machinery for making and bottling Soda and other Aërated Waters, &c.



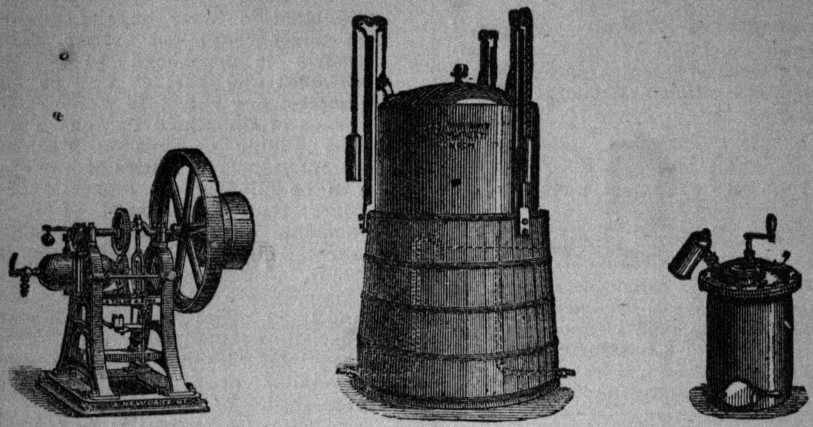
Aërated Water Machinery as exhibited has been supplied to most of the best firms in India for nearly fifty years, as well as to many regiments there.

A Gold Medal was awarded to the firm at the Paris Exhibition, 1878, and the highest award obtained by them at Melbourne in 1881 for Aërated Water Machinery.

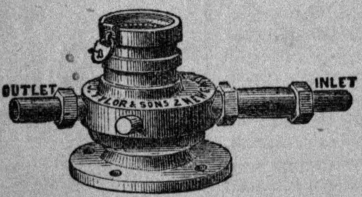
Messrs. Hayward Tyler & Co. also exhibit Macdonell's Patent Steam Bottling Machine, which is well known in England as effecting great saving in labour and minimising breakage.

(*See other entry in this Section, also Section D.*)

Tylor (J.) & Sons, 2, Newgate Street, London.—**Soda Water Machinery**; Diving Apparatus; Hot Air Engines; Pumps and Well Engines; Fire Engines; Fittings for Waterworks Mains; Brass and Gun Metal Valves; Patent Water Meters; Patent Automatic Waste-Detecting and Registering Water Meters.



Machinery for making Aërated Water, as exhibited by Messrs. J. Tylor and Sons, is largely in use in India, Africa, Australia, New Zealand, Egypt, and on the Continent, some of these Machines having been in use nearly fifty years. They are of the best workmanship and material, with all known modern improvements. The Highest Award was obtained at Sydney in 1880, by the Firm, who also secured Prize Medals at the International Exhibition, 1851, the London International Exhibition, 1862, the Paris Exhibition, 1855, and the Dublin Exhibition, 1853.



Messrs. J. Tylor and Sons' Patent Water Meters are made entirely of Brass and Gun Metal up to 2 in. thus preventing corrosion so common in Iron Meters. The Meters, as shown, are sensitive, accurate, can be regulated without taking to pieces, and are in use all over the world; they register correctly at low velocities, either on high, low, or varying pressures.

The Firm also make a Patent Automatic Waste Detector and Registering Meter for detecting waste in Mains, &c. The movement of the Water Meter, and the time at which such movements occur, are reproduced exactly and almost continually on a diagram.

Messrs. J. Tylor and Sons are also manufacturers of all kinds of Sanitary Appliances, in which they have had great experience. Their Patent "Waste Not" Taps and Valves which limit the waste of water, and cannot be made to run a continuous stream, have been found of great advantage, in some cases having reduced the waste and consumption of water 70 per cent. Upwards of a quarter of a million are in use

(*See also Section C.*)

Walsh, Lovett & Co., Birmingham, Sheffield, and London; and Commercial Buildings, Calcutta.—Ice Making Machinery.

The machinery for the production of clear block ice, or for quick freezing and the production of rough ice, as exhibited, is on the ether principle, and is designed to work in the most economical manner, the engine being of the best description; in the larger machine they are compound and condensing, thus working with the minimum of fuel.

These machines are working at Dacca, Kurrachee, Rangoon, Formosa, Batavia, Foochow, Amoy, &c.

(*See other Entries in this Section, also Sections D. & F.*)

West (H. J.) & Co., Southwark Bridge Road, London.—Ice Making Machine.

Ewart (John).—Means of producing Artificial Light.

Harper and Moores, Lower Delph Fire Clay and Brick Works, Stourbridge.—Gas Retorts; Fire Bricks; Fire Clays; Plumbago and Fire Clay Crucibles, &c.

Harrison (George King), The Lye Fire Clay and Brick Works, Stourbridge.—Retorts, Ovens, Bricks, &c., used in Gas Making.

Muller (H. L.), 22, Mary Ann Street, Birmingham.—"Alpha" Gas Making Machine.

Pennycook Patent Glazing and Engineering Co., Limited, 58, Renfield Street, Glasgow; and 57, Chancery Lane, London.—Patent System of Glazing without Putty.

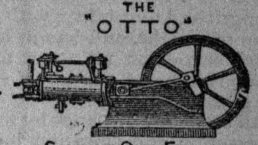
(*See Descriptive Notice.*)

Rose, Downs & Thompson, Old Foundry, Hull.—Small Oil Mill with Engine.

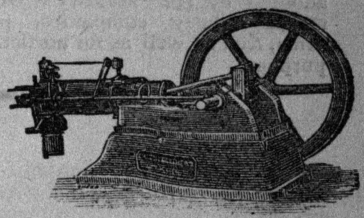
Spong & Co., 249, High Holborn, London (Agents for the Exhibition: Balmer, Lawrie and Co., 5, Clive Street, Calcutta).—Pneumatic Fire Extinguisher.

Crossley Brothers (Limited), Openshaw, near Manchester.—"Otto" Gas Engines.

The "Otto" Gas Engines received the Gold Medal at the Paris Electrical Exhibition; Gold Medal, Melbourne; Gold Medal, Adelaide; Gold Medal, New Zealand; Seven other Gold Medals, and Thirteen Silver Medals.

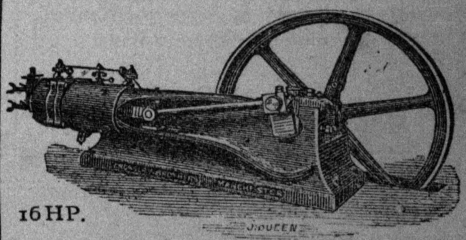


Messrs. Crossley Brothers are Sole Manufacturers of this Engine for Great Britain, India, Australia, and all British Colonies. The Otto Engine cannot be made in the British Colonies or imported from any of the Continental Licensees without infringing Patent rights.



About 7,000 of these Engines are now in use. The "Otto" Engine may be found in almost every trade. Advantages compared with steam are as follows:—No waiting to get up steam, start at once, no smoke, no dust little heat, no ashes to cart away, no risk o boiler explosions, no boiler to wear out and clog up, take up little room, seldom affect insurances, are very economical in gas, require little attention, no chimney to build, no nuisance from bad water or feed pump, as in boilers.

These Engines are well made, and wear well.



The "Otto" is made in the following sizes:—

Noml. Power	½	1	2	3½	6	8	12	16
Max. In. Pow.	1	2½	4	6	11½	14½	23	40

"Otto" Engines with fire and force pumps combined are now made.

Engines are kept in stock by all Agents.

Pennycook Patent Glazing and Engineering Co., Limited, 58, Renfield Street, Glasgow; and 57, Chancery Lane, London. — Patent System of Glazing without Putty.

The Sashbar in this system is a combination of lead and zinc, so formed as to give the maximum of strength and durability, with the minimum of weight, and has in it a gutter which carries off all water formed by condensation on the inner surface of the glass.

All breakage of panes by expansion, contraction and vibration is avoided, as the bars are of great strength, and offer a firm support to the glass, which, at the same time, is not held rigidly as in the case where putty is used.

This system has been largely adopted by Her Majesty's Government, railway companies, private firms, &c., as well as for horticultural purposes.

Eley Brothers, Limited, 254, Gray's Inn Road, London.—Ammunition; Sporting and Military Cartridges; Percussion Caps; Gun Waddings.

Greener (W. W.), St. Mary's Works, Birmingham. — Guns and Rifles.

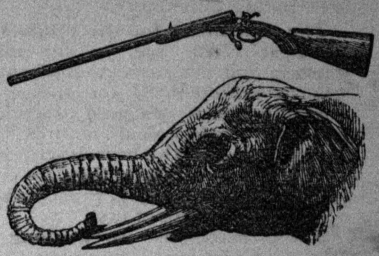
Hall (John) & Son, 79, Cannon Street, London.—Gunpowder.

Henry (Alexander), 12, South Saint Andrew Street, Edinburgh; and 118, Pall Mall, London.—Sporting Guns and Rifles; Military and Target Rifles; Pistols, &c.

(*See Descriptive Notice.*)

Hollis (Isaac) & Sons, 5 to 11, Weaman Row, St. Mary's Square, Birmingham. — Rifles; Guns; Revolvers.

Holland & Holland, 98, New Bond Street, London. — Sporting Guns and Rifles.



TRADE MARK.

This Collection includes:—

Express Rifles, ·400, ·450, ·500, and ·577 bore;

Tiger Rifles;

Elephant Rifles;

Miniature Express ·360 Rifles;

Patent Hammerless ·295 Semi-Smooth-bore Pea (Rook) Rifles;

Pea Rifles with Hammers, ·295 and ·360 bore.

(A Special First Prize was given for these Rifles at the Sydney Exhibition.)

Patent Climax Hammerless Guns;

Patent Self-cocking Hammer Gun;

Patent Ejecting Gun.

New Steel-Barrelled C. F. Swivel Gun;

Four and Eight bore Long Range Shoulder Guns.

Messrs. Holland & Holland are makers by Special Appointment to His Majesty the King of Italy.

James (Enos), Loveday Street, St. Mary's Square, Birmingham (Agents at the Exhibition: Ledger, Smith and Co.).—Guns; Rifles.

(*See Descriptive Notice.*)

Joyce (Frederick) & Co., 57, Upper Thames Street, London; and Waltham. — Sporting Ammunition.

Kennall Gunpowder Company, Kennall Vale, Penrhyn, Cornwall.—Gunpowder in its several stages of manufacture.

Henry (Alexander), 12, South Saint Andrew Street, Edinburgh; and 118, Pall Mall, London.—Sporting Guns and Rifles; Military and Target Rifles; Pistols, &c

This Collection includes:—

Double and Single Barelled C. F. "Miniature Express;" "Expeess;" and large bore Sporting Rifles;

Double Rifles with the "Lefaucheux" action and outside hammers; with top lever snap action, and with the Exhibitor's patent under-lever inside hammer or "hammerless" action; and Single Barrelled Rifles with his patent vertical block action (both outside hammer and self-cocking), to which the Prize of £600 was awarded by Her Majesty's Secretary of State for War, in competition with 104 different systems;

Armes de Luxe, in gold inlaid "Express" and "Miniature Express" Rifles;

Sporting Guns, Double Barrelled C. F., with the Exhibitor's patent top lever inside hammer or "hammerless" action, and with top-lever actions with outside hammers; also Compound Gun, with one rifled and one smooth bore barrel;

"Henry" Match Rifle; Henry Military Rifle, as adopted by the Government of New South Wales; and Telescope Rifle or Wallpiece for extra long ranges;

Revolvers; Double Barrelled C. F. Pistols: and Over and Under Pistols.

The Exhibitor is Gun and Rifle Manufacturer by Special Appointment to H.R.H. The Prince of Wales and H.R.H. The Duke of Edinburgh. He is also Patentee of the Rifled Barrel and Ammunition adopted by the British Government, and of the Rifle adopted by the Government of New South Wales.

Medals:—*Vienna*, 1873 (*two*); *Philadelphia*, 1876 (*two*); *South Africa*, 1877; *Paris*, 1878; *Melbourne*, 1880; *Adelaide*, 1881; *Edinburgh Fisheries*, 1882.

James (Enos), Loveday Street, St. Mary's Square, Birmingham.—Guns; Rifles.

This collection of exhibits comprises a small but interesting assortment of Guns and Gun Material.

Amongst the Guns are three fine specimens of the Anson and Deeley Hammerless Gun (the action part of this gun being also exhibited to illustrate the mechanism);

Two specimens of the ordinary Hammer Gun, with Hammers below the line of sight when cocked, and with the latest improvements;

Sections of Gun Barrels, illustrating the process of manufacture in England.

English barrels are far superior to the Belgium barrels used by many other gun makers, and only these are used by the Exhibitor.

Kerr (James), 118, Queen Victoria Street, London.—Arms.

Kynoch & Co., Lion Works, Witton, near Birmingham. Depots: 7 & 9, St. Bride's Street, Ludgate Circus, London; and 14, Whittall Street, Birmingham. Rolling Mills, Water Street, Birmingham. Agency in Calcutta: Rentiers and Co., 5, Mission Row; in Bombay: Heptoola, Shaik, Adams & Co., 6, Apollo Street Fort. —Military and Sporting Ammunition.

(*See Descriptive Notice.*)

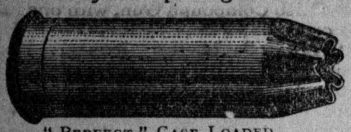
Lancaster (Alfred), 27, South Audley Street, Grosvenor Square, London.—Sporting Guns and Rifles; Patent Automatic Cartridge Extracting and Hammerless Guns, &c.

(*See Descriptive Notice.*)

Lancaster (Charles), 151, New Bond Street, London.—Guns; Rifles; Pistols.

(*See Descriptive Notice.*)

Kynoch & Co., Lion Works, Witton, near Birmingham. Depots: 7 & 9, St. Bride's Street, Lud gate Circus, London; and 14, Whittall Street, Birmingham. Rolling Mills, Water Street, Birmingham. Agency in Calcutta: Rentiers and Co., 5, Mission Row; in Bombay: Heptoola, Shaik, Adams & Co., 6, Apollo Street Fort. —Military and Sporting Ammunition.



"PERFECT" CASE LOADED.

This Exhibit includes:—

The NEW PATENT "PERFECT" RELOADING METALLIC CARTRIDGE CASES, in all Gauges; recommended as being as cheap as paper Cases and lighter in weight, damp proof, and giving extra regularity and penetration in Shooting. ESPECIALLY ADAPTED FOR INDIA.

NEW PATENT IMPROVED CRIMPER FOR "PERFECT" CASES;

MORRIS'S PATENT TUBES, ·230 AND ·300 BORE, FOR RIFLES AND FOR CONVERTING A SHOT GUN INTO A RIFLE; CARTRIDGES FOR SAME;

SALMON, GREEN, BLUE, & BROWN PAPER CARTRIDGE CASES IN ALL GAUGES;

SPECIAL "ORANGE" CASES FOR EC POWDER;

SOLID BRASS CASES;

NICKELLED CASES;

RELOADING TOOLS;

SOLID DRAWN MILITARY CARTRIDGE CASES, INCLUDING SNIDER, MARTINI, GRAS, MAUSER, REMINGTON, &c.;

REVOLVER CARTRIDGES;

FOG SIGNALS;

FRICTION TUBES FOR CANNONS;

WHITE FELT WADS, BROWN FELT WADS, WATERPROOF WADS, BROWN GLAZED CARD WADDING;

BULLETS FOR RIFLES, GATLING GUNS, AND REVOLVERS;

MILITARY CAPS AND PRIMERS;

CAPS FOR SPORTING CASES.

MEDALS: GOLD MEDAL, NEW ZEALAND, 1882; SILVER MEDAL, PARIS, 1878.

Messrs. Kynoch and Co. are Manufacturers by special decree to His Majesty King Alfonso XII. of Spain. They are also Contractors to all the principal Governments.

Lancaster (Alfred), 27, South Audley Street, Grosvenor Square, London.—Sporting Guns and Rifles; Patent Automatic Cartridge Extracting and Hammerless Guns, &c.

The Guns and Rifles as exhibited are manufactured according to the newest and best inventions. All the manufactures of the house are produced under the direct superintendence of Mr. A. Lancaster, who is the sole survivor of the family of Mr. Charles Lancaster, many years active partner of the late Mr. C. W. Lancaster. The Lancaster family have a reputation as gun makers extending over more than a century.

At the Great International Exhibitions of Paris, 1867, Vienna, 1873, Philadelphia, 1876, Paris, 1878, and Amsterdam, 1883, the highest honours and distinctions were obtained for the inventions and improvements in sporting arms exhibited by Mr. A. Lancaster.

Lewis, (G. E.), 32 and 33, Lower Loveday Street, Birmingham (Agents at the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta). Rifles; Guns; Implements; Revolvers; Air Canes, &c.

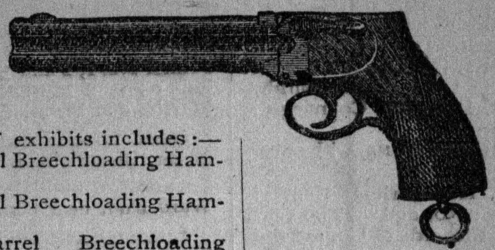
Newcastle Chilled Shot Co., Limited, Gateshead-on-Tyne. —Chilled Shot; Chilled Bullets.

Pigou, Wilks & Laurence, Limited, 11, Queen Victoria Street, London. Works: Dartford, Kent; and Battle, Sussex.—Gunpowder of all descriptions.

Purdey (James) & Sons, Audley House, South Audley Street, London. —Sporting Guns and Rifles; New Rebounding Hammerless Gun, &c.

Lancaster (Charles), 151, New Bond Street, London.—Guns; Rifles; Pistols.

(ESTABLISHED 1826.)



This collection of exhibits includes:—

Patent Four-barrel Breechloading Hammerless Guns;

Patent Four-barrel Breechloading Hammerless Rifles;

Patent Four-barrel Breechloading "Cape" Rifle (two barrels rifled for ball and two barrels bored for shot);

Patent Four-barrel Breechloading Hammerless Pistols;

Large Smooth Oval-bore Breechloading Elephant and Tiger Rifles;

Non-fouling Smooth Oval-bore Breechloading Express Rifles;

Non-fouling Smooth Oval-bore Breechloading Rook and Rabbit Rifles;

Non-fouling Smooth Oval-bore Breechloading Miniature Match Rifles, with open and orthoptic sights;

Hammerless Breechloading Guns, with Patent Cartridge Ejector and Automatic Safety;

Latest pattern Breechloading Hammer and Hammerless Guns for Game and Pigeon Shooting;

Breechloading Swivel Punt Duck Gun in case, with fittings complete;

Patent Large-bore Breechloading Hammerless Guns for Wild Fowl Shooting;

"Colonial" Quality Breechloading Guns, with Hammers out of the line of sight — top-lever snap action, also "Colonial" quality Hammerless Guns. (These guns are made specially for rough work in the Colonies.)

Charles Lancaster's Patent Cartridge-loading Machines;

Charles Lancaster's Patent Cartridge-closing Machine for Kynoch's Patent "Perfect" Brass Cases.

PATENT SHOT CONCENTRATORS. (New Models.)

ARMES DE LUXE.

This collection includes a large display of elaborately finished Guns, Rifles, and Pistols, inlaid with gold and silver; also some electro-gilt, all fitted into handsome cases lined with velvet, any of these being suitable for presentation.

N.B.—Mr. Charles Lancaster attends *personally*.

Reilly (E. M.) & Co., 16, New Oxford Street, and 277, Oxford Street, London; and Rue Scribe, Paris.—Sporting Guns and Rifles; Revolvers; Gun Cases and Apparatus.

Webley (P.) & Son, Birmingham.—Fire Arms.

Westley Richards & Co., London and Birmingham.—Guns, Rifles, and Cartridges.

(See Descriptive Notice.)

Walsh, Lovett & Co., Birmingham, Sheffield, and London; and Commercial Buildings, Calcutta.—Sporting Guns and Rifles.

TRADE MARK.

(See other Entries in this Section, also Sections D. & F.)

Westley Richards & Co., London and Birmingham.—Gun, Rifles, and Cartridges.

This Firm was established in 1813.

The Exhibitors are Gun makers by special appointment to H.R.H. The Prince of Wales, H.R.H. The Duke of Edinburgh, and H.R.H. The Duke of Connaught. Their specialities are:—

PATENT HAMMERLESS GUNS, with automatic safety bolts;

Patent Double Hammerless Express Rifles in ·360, ·400, ·450, and ·577 bores.

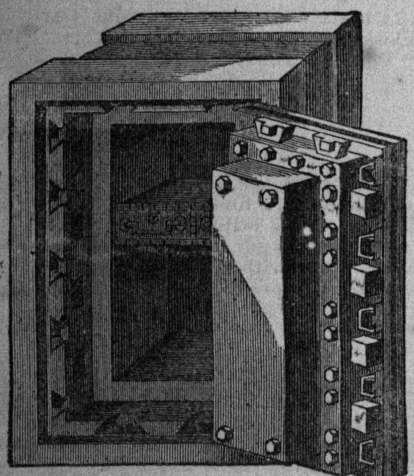
Messrs. Westley Richards & Co. are the sole makers of the celebrated Deeley Edge-Metford Military and Match Target Rifles, and of the Westley Richards Patent Falling Block and the Deeley Edge Patent Sliding Block Single Sporting Rifles of various calibres. They are also the inventors and manufacturers of the Westley Richards Patent Metallic Cartridges with Patent Primer No. 1, 2 and 3 Express; No. 1 Carbine; No. 2 Musket; and Solid Metallic Martini and Snider Cartridges.

Head Offices and Gun Works, High Street, Birmingham.

Cartridge and Percussion Cap Works, Ward End, near Birmingham.

London Establishments: 178, New Bond Street; and Leadenhall Buildings, Gracechurch Street.

Milners' Safe Company, Limited, 28, Finsbury Pavement, London; Phœnix Safe Works, and 8, Lord Street, Liverpool; and 28, Market Street, Manchester.—Wrought Iron Safes, Fire and Thief Resisting; Gunpowder Magazines, Strong Rooms, Bank Doors, Gates, Locks, &c.



Milners' Safe Company are the largest makers in the world of Bankers' Bullion Safes, Strong Rooms, Doors and Safes of all descriptions. The principal Banks, Public Offices, and Merchants in Great Britain and the Colonies are using them. Foreign Governments and Commercial houses abroad are also very largely supplied with Milners' manufactures, which include Locks for all purposes—house doors, hotels, public buildings, prisons, asylums, &c., in suites, with master keys to pass any number; also Locks for all cabinet purposes, railway carriages, &c.; Fire-Resisting Boxes, for the protection of deeds, &c., in lawyers' offices and private houses; Safes for business purposes, for safe custody against fire; Safes to resist Fire and Thieves; Safes for gold dust, bullion, and precious stones, of strength to meet various degrees of risk; Doors for fireproof rooms; Doors and Ventilating Gates for bankers' bullion vaults and strong rooms; Iron and Steel Strong Rooms, with Doors and Ventilating Gates attached, specially designed for erection abroad; Safe Deposits, consisting of large Iron and Steel Rooms, subdivided into convenient compartments, fitted throughout with small Safes (or integers) which are let out to renters at a fixed charge per annum; each Safe having two locks, one under the absolute control of the renter, the other securing the renter's keyhole, and accessible only to the lessor's key, thus effecting double security.

The Great National Safe Deposit in London was fitted with safes—more than 5,000 in number—by Milners' Safe Company, Limited.

A large Safe, constructed entirely of heavy wrought iron boiler plates, intersected throughout by hardened drill-proof steel, and weighing 250 tons, has been completed by Milners' for the Liverpool Safe Deposit Company. It is divided into five compartments, one for the keeping of cash-boxes deposited at night and withdrawn during the day, two fitted with 1,400 small Safes, ranging in sizes from 4½ in. by 5½ in. by 1 ft. 8 in., to 2 ft. and 2 ft. by 1 ft. 8 in., and let at rentals varying from £1. 1s. to £6 per annum; and the remaining compartments are devoted to the custody of deed boxes, jewel cases, plate safes, and other valuables.

The Exhibit consists principally of Safes in general use in mercantile offices and Banks, and not of Safes designed to meet any extraordinary risk.

THE RAJAHS' JEWELS, NOW BEING EXHIBITED, ARE DEPOSITED AT NIGHT IN MILNERS' SAFES SPECIALLY SENT OUT FROM ENGLAND FOR THE PURPOSE.

This Company was awarded First Order of Merit (with Gold Medal) for Fire and Burglar Proof Safes, and First Order of Merit (with Silver Medal) for Bank Door and Lobby, at the Melbourne International Exhibition, 1880.

The Agents for Milners' Safe Company at Calcutta are Messrs. Thomson & Co., 9, Esplanade.

(See Advertisement.)

Austin Dodson, Cambria Works, Arundel Street, London—Specimens of Steel for Springs; Dies; Locomotive work; Octagon Mining Steel for shears, drills, picks, etc. Files and Circular Saws.

Brotherton (John), Imperial Tube Works, Wolverhampton.—Manufacturer of Iron Tubes and Fittings for Gas, Steam and Water; Hydraulic Tubes, Tuyere Tubes and Coils for Anvils; Stocks; Taps, Dies; Taper Telegraph Poles; etc., for the home and Foreign Markets. Sole Patentee of Wrought-Iron Lap-Welded Machine-Made Fittings. The only manufacturer of Jenning's Improved Patent Raised Joints for Gas, Steam aud Water.

Awards.—Amsterdam Exhibition 1883, Silver Medal.

Award.—Amsterdam Exhibition 1883, Honourable mention.

Represented by T. E. Thomson and Co., Calcutta.

Burrell (J.) Sons—Portable Engines.

Fraser (A. B). Co.—Fresh water Condensers and Safety valves.

Gibbs (George), 29, Corn Street, Bristol.—Gun and Rifle Manufacturer.—First Hammerless Gun invented.

Giffard Patent Freezing Co.—One 9,000-feet Cold air Ice making Machine with Ice Chamber complete.

Gladstone, Wyllie & Co., Calcutta, Agents to the "City" Line Steamers, a model of the S. S. "City of Calcutta," 3876 tons register, 400 feet long, built by C. Cornell & Co., Glasgow, in 1881. Owners, G. Smith & Sons, Glasgow.

Gwynne (J. & H.), London—10" Invincible Centrifugal Pump with Engine complete; 8" Centrifugal Pump with air Exhauster and Clock Valve; Portable Centrifugal Pump.

Hopkinson & Cope, London—Super-royal Genuine Albion Printing Press, fitted ready for use; a 20-inch Treadle Perfecting Machine; Super-royal Cylindrical Ink Table with Roller and mould complete.

Agents: John Dickinson and Co., Calcutta.

Jessop & Co., Calcutta.—*Collective Exhibit* of Steam Hydraulic Gauges; Boiler fittings; Cocks; Injectors, etc., etc.

Kitson & Co.'s, Leeds, TRAMWAY ENGINES.

Dimensions and Weights.

The cylinders are 7¼ inches diameter, and have a 12-inch Stroke.

The wheels are 2 feet 4¼ inches in diameter on the tread.

The weight of the Engines, when empty, is 6¼ tons; when loaded, 7 tons.

For full particulars apply to Robinson, Morrison & Co., Sole Agents for India, 104, Clive Street, Calcutta.

MacDernott (Glover,) Albert Iron Works, London—Hand labor Patent percussive Rock perforator.

Merces (G. D.), 101, Lower Circular Road, Calcutta.—A patent Cast iron Steam Oil Mill.

Portable, durable, simple and compact in construction and light in weight, requires little motive power, while it expresses oil from seeds in ⅓rd the time and larger in quantity than the existing mills now working in Calcutta.

(The above exhibit is of Indian manufacture, and should have been entered in the Indian Court.)

Milners Safe Co., Limited, Phœnix Safe Works, Liverpool.—Quadruple Patent Holdfast and Fire Resisting Safes. Burglar Resisting Jewellery Safes. *The strongest best and cheapest safeguards in the world against Fire and the modern Burglar.*

Upwards of twenty of these safes are being used by the Exhibition Authorities for the safe custody of the Jewelery Exhibits.

Represented by their Calcutta Agents, T. E. Thomson and Co. 9, Esplanade Row.

Moore (Jno.) & Co., Manchester.—Self-acting slide Surfacing and Screw-cutting Gap Lathe.

Owens (J.) & Co., London.—Treble Brass Barrel Pump with Engine Frame; Double Brass Pump for hand power.

Kirlew & Co., Manchester, Patent Linen Belting; Patent Belting Fasteners; Asbestos Packing; Asbestos Millboard.

Agents: Struthers & Co., Calcutta.

Patterson Cooper & Co., London.—Electrical and Telephonic Appliances.

Potter (J. W.)—Wire gauges.

Richard (Theo.) and Co.—Lamps, &c.

Robey & Co., Lincoln.—20-H.P., and 10 H.P. Portable Engines; 4-H.P. Vertical Engine boiler; Single Corn Grinding Mill, Improved Double blast; Patent Iron-trained Thrashing Machine.

Stone (John) & Co., London.—Portable Fire Engine Pump with hose and couplings complete.

Storey (J.) Son, Pollock and McNab.—Brass fittings; Lathes; Drilling Machines.

Tangye Bros., London.—Holman's Portable Fire Engine and Pump complete.

Thomson Sterne & Co., Glasgow.—Emery Tool Grinder.

Thomson (T. E.) & Co. 9, Esplanade Row, Calcutta.—Easton and Anderson's patent 8 and 10-inch Appold Centrifugal Pumps. The 10-inch Pump driven by a Clayton Shuttleworth's 8 H.-P. Patent. Portable Steam Engine works the Waterfall at the Tank south of the Museum.

Thomson (T. E.) & **Co.** 9, Esplanade Row, Calcutta.—Tangye's "Special" direct acting Steam Pump with vertical cross tube boiler. This Pump works the Fountains in the west Section of the Exhibition.

Thomson (T. E.) & **Co.** 9, Esplanade Row, Calcutta.—Willcox and Gibbs' Automatic Silent Sewing Machines.

Turner (E. R. & F.) St. Peters' Iron Works, Ipswich.—Vertical Engine and Boiler; Corn Grinding Mills and Corn Seed and Malt Crushers. Represented by T. E. Thomson & Co. Calcutta.

Thomson (T. E.) & Co, 9, Esplanade Row, Calcutta.—*A Collective Exhibit* of Joiners' and Carpenters' Tools, Edge Tools, Lancashire Tools; Mining Tools; Files, Spring Balances and Weighing Appliances; Door Locks and Latches with furniture; Amateurs Turning Lathe and Fret Machine.

Thomson (T. E.) & Co., 9, Esplanade Row, Calcutta.—Rudge's Bicycles and Tricycle.

Turner, Naylor and Marples Sheffield.—Edge Tools; Stocks and Dies.

United Asbestos Co., Ld., London.—Patent Woven Asbestos; Specimens of Asbestos Millboard for making all kinds of steam, water and air joints.

Warner (J.) & Son, Crescen Foundry, Criplegate, London.—Fire Engines; Water Temperator.

Wilson (A.) & Co., London.—No. 4, 8 and 10 Vauxhall Steam Donkey Pumps; Excelsior Steam Pump; 3 Pumps.

Winstone (B.) Sons, London.—A Lithographic Press fitted with stone and material ready for use.
Agents: John Dickinson & Co., Calcutta.

Ahmuty & Co., 6, Church Lane, Calcutta.—A Collective Exhibit comprising:

GILLINGHAM PORTLAND CEMENT CO.'s, Kent, Portland Cement.

C. BURRELL & SONS, Saint Nicholas Works, Thetford, Norfolk—6 and 8-Horse Power Portable Engines.

FARMER, ROBEY, BROWN AND CO., Trent Foundry, Gainsborough. 8-Horse Power Portable Engine; 3-Horse Power Vertical Engine.

POLLOCK AND MACNAB, Britannia Iron Works, Hyde, near Manchester.—Lathes and Drilling Machines.

ISAAC STOREY & SONS, Knott Mill Brass and Copper Works, Little Peter St., Manchester, and Cathedral Yard, Manchester.—Finished Brass Work for Engines and Boilers, Steam Valves and Cocks, Injectors, Pressure Gauges, Whistles, etc., etc.

HEPBURN AND GALE, 239, Long Lane, Southwark, London.—Leather Belting, and Laces.

COPAL VARNISH CO., LIMITED, 46, Bankside, London.—Varnishes, etc.

TURNER, NAYLOR AND MARPLES, Sheffield.—Joiners and Engineer's Tools.

CANTWELL'S Patent Sugar Cane Mills, Sanitary Carts, and Tea Boxes.

Section H.

FOOD PRODUCTS.

(*CLASSES* 110 *to* 136.)

Brown & Polson, Queen Victoria Street, London: and Paisley (Agents for the Exhibition: Ledger, Smith & Co.).—Corn Flour.

Bush (W. J.) & Co., 20—23, Artillery Lane, Bishopsgate Street, London.—Fruit Essences; Extracts.

Amongst the preparations included under the general heading above is FRUIT SALINE, which when mixed with water produces an agreeable and refreshing beverage. This beverage resembles the natural mineral waters of Germany, the use of which is so generally recommended in cases of Fever, Gout, Rheumatism, Skin Diseases, Bilious and other affections.

FRENCH CREAM GUM EXTRACT is a novel preparation, for use in connection with Syrups, Mineral Waters, Cider Beer, Wine, and other Liquors, when a frothy foam or head is required. The foam produced by it is light, frothy, and elegant. By its use the retention of the carbonic acid is aided, the bulk increased, and the appearance of the beverage improved. When this Extract is used Soda Water, Ginger Ale, and similar beverages prove equally effective even though charged lower by twenty degrees. The exhibitors claim that it will save more than a hundred times its cost.

Soda Water, Beer, and similar beverages, when drawn in an open tumbler, soon become flat and worthless, owing to the rapid escape of the gas.

From one to two ounces of the Extract, according to the amount of foam required, should be added, thoroughly mixed, to each gallon of Syrup for bottling purposes; for Champagne, Cider, Ale, Beer, &c., one ounce of the Extract to every four gallons.

The price of the Extract is 2s. 6d. per lb.

(*See also Section F.*)

Cannon (B.) & Co., Lincoln.—Gelatine Powder.

Carr & Co., Carlisle.—Biscuits.

The Biscuits manufactured by this Firm are of great variety. Superior quality is ensured by the use of none but the finest materials.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Clanchy (F. J.), Cork, Ireland.—Butter.

The Exhibitor is proprietor of the "Red Star" Brand. The Butter exported by him is packed at the dairies, its quality is guaranteed to be the choicest, and in sweetness no other tinned butter excels it.

The Sole Export Agents are Messrs. Eyre and Spottiswoode, of London.

Clarke (W. G.) & Sons, Anchor Patent Biscuit Works, Limehouse, London.—Buffalo Meat Biscuits for Dogs; Pheasant Meal; Prepared Poultry Meal; Ship Biscuits; Army Biscuits.

(*See Descriptive Notice.*)

Corbett (John), M.P., Stoke Prior Salt Works, Worcestershire.—Salt for Provision Curing, Table, and Dairy Purposes.

(*See Descriptive Notice.*)

Currie & Co., Paisley, Scotland.—Corn Flour.

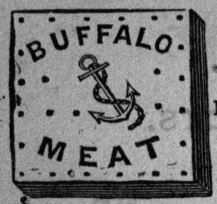
The Exhibitor is proprietor of the "Glenfield" Corn Flour. The uniform quality of this Corn Flour causes it to be largely exported.

The Sole Export Agents are Messrs. Eyre and Spottiswoode, of London.

Edgar (J.) & Co., Deal, Kent.—Tinned Sprats and Mackerel in Oil; Tinned Vegetables.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents for these articles, which are moderate in price and of uniform good quality.

Clarke (W. G.) & Sons, Anchor Patent Biscuit Works, Limehouse, London.—Buffalo Meat Biscuits for Dogs; Pheasant Meal; Prepared Poultry Food; Ship Biscuits; Army Biscuits.

TRADE 

MARK.

The Buffalo Meat Biscuits are the result of many varied and careful experiments both practical and scientific; they contain the largest amount of nutriment to be found in any description of dog food, and possess properties of which no other biscuit or dog food can boast, being compounded with skill and care, and due regard to every ingredient necessary to the development of muscle—so much desired by all sportsmen and exhibitors of dogs—thus forming the best and most successful food for dogs that it is possible to produce. Their success is conclusively demonstrated by the large and increasing demand for them, not only in England but throughout the world.

Mr. FRANK GOODALL, the Queen's Huntsman, writes:—

"A more nourishing and suitable Food for Dogs has not yet been invented."

Dr. ZURN, Professor of the Veterinary College, Leipzig, says:—

"We have carefully analysed Clarke's Buffalo Meat Biscuits, and found them, in comparison with other Biscuits and Dog Food, the best by far. They possess double the quantity of nourishment that is to be found in flesh, which easily accounts for the excellent effect of these Biscuits."

Every Biscuit is stamped with the Trade Mark as above.

The other specialities of the Firm are:—

Clarke's Prepared Poultry Food, which, being thoroughly cooked, affords the greatest protection against disease, promotes the growth of the birds, sustaining them in the highest degree of health, and giving lustre to the plumage;

Clarke's Bubula (granulated Meat for Game and Poultry), the finest Egg Producer; and

Clarke's Pheasant Meal.

The Ship and Army Biscuits are manufactured from the finest selected Wheaten Meal, and will keep in any climate.

Messrs. W. G. Clarke & Sons are the Sole Manufacturers of these articles.

The Firm was established in 1851.

Evans, Sons & Co., 56, Hanover Street, Liverpool (EVANS, LESCHER AND WEBB, 60, Bartholomew Close, London).—Lime-Fruit Juice and Preparations; and Conroy's Malt Coffee.

Trade Mark,

"MONTSERRAT."

The Preparations are as follows:—

THE MONTSERRAT LIME-FRUIT JUICE;

LIMETTA, OR *pure* LIME-FRUIT JUICE CORDIAL;

AROMATIC MONTSERRAT, CLOVE, JARGONELLE, PEPPERMINT, PINE-APPLE, QUININE, RASPBERRY, SARSAPARILLA.

All most agreeable and refreshing Beverages, either with or without water. Also Montserrat Lime-Juice Sauce, cheaper than any other Sauce. These Preparations have secured honours wherever exhibited.

CONROY'S MALT COFFEE

(Patented),

Being *pure* Coffee of a good blend mixed by patent process with Malt, assists digestion, and makes Coffee agree with those who cannot otherwise partake of it. Highly recommended by the medical profession.

Fry (J. S.) & Sons, Bristol; and London.—Chocolate; Cocoa.

Gillon (John) & Co., Leith, Scotland.—Preserved Provisions.

Grimble & Co., Cumberland Market, London.—Vinegar.

Hemingway (S.) & Co., Trafalgar Street, Bradford.—Baking Powder.

(*See Descriptive Notice.*)

Keiller (James) & Son, Dundee and London (Agents for the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta).—Confectionery; Marmalade; Jams; Table Jellies; Bottled Fruits.

Mackenzie & Mackenzie, 22, Earl Grey Street, Edinburgh.—Biscuits.

Maconochie Bros., Raglan Works, Lowestoft.—Preserved Provisions.

Corbett (John), M.P., Stoke Prior Salt Works, Worcestershire.—Salt for Provision Curing, Table, and Dairy Purposes.

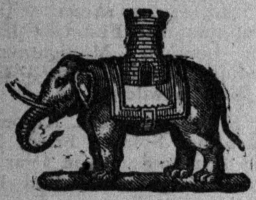
This Exhibit comprises specimens of Salt for Table, Dairy, Provision Curing, and general purposes, made from the Natural and Pure Brine Springs of Worcestershire. At all the principal European, American, and Colonial International Exhibitions at which it has been shown, Prize Medals have been awarded for this Salt.

The Salt, so well known in the Australian markets, and all markets of the world, bearing the "Black Horse" or the "Elephant and Castle" brand, is all manufactured at the Stoke Prior Salt Works.

The London Office is at 115, Lower Thames Street, Messrs. Weston and Westall being the Agents.

The Shipping Ports are London, Gloucester, Sharpness, Bristol, Wisbeach, Hull, and Grimsby.

JOHN CORBETT'S



TRADE MARK.

WESTON & WESTALL'S

TRADE MARK.

جان کوربیٹ صاحب ممبر پارلیمنٹ کارخانۂ نمک اسٹوک پرایر ورسترشایز ۔ نمک واسطے حفاظت خوراک و استعمال میز و خروریات کارخانۂ دودھ و غیرہ

یہہ پیکٹ شامل ہي نمونجات نمک واسطي استعمال خوراک و کارخانۂ دودھ و غیرہ و حفاظت اشیای خوراک اور خروریات عام کي یہہ تیار ہوا ہي اصلي اور خالص شور چشمہ جات ورسترشایر سی ۔ سب قوی عجایب خانہ مین یورپ امریکہ اور کالنی کی جہان یہہ پیش کیا گیا ہي تغمہ عطا ہوی ہین

نمک جو خوب مشہور ہي بازار استریلیا مین بلکہ تمام دنیا مین اور جس پر تہہ سیاہ گھوڑی کا یا ہاتھي اور قلعہ کا ہي یہہ کارخانۂ اسٹوک پرایر سالٹ مین بنتا ہي

پتہ لندن اوفس کا ۱۱۵ لوئیر تیمس اسٹریٹ بنام ویسٹن و ویسٹال اجنٹان ہي

بندر گاہ جہاني یہہ روانہ ہوتا ہي لندن گلوسٹر شاپنیس برسٹل ویسبیچ ہل اور گرمسبي ہین

Hemingway (S.) & Co., Trafalgar Street, Bradford.—Baking Powder.

This Baking Powder is strongly recommended for use in making Bread, Pastry, Cakes, Puddings, &c. By its use a much larger quantity can be obtained from a given weight of flour than can be produced by yeast: and that which is produced will be LIGHTER and more WHOLESOME.

The exhibition of this Baking Powder has invariably secured high honours for the Firm.

(*See also Section F.*)

MacVitie (R.), Edinburgh.—Oat Cakes; Shortbread.

The possibility of obtaining in remote parts of the world Oat Cakes and Shortbread of excellent quality, will doubtless be appreciated by Scotchmen living abroad.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Marshall & Co., Spring Garden Works, Aberdeen (Agents for the Exhibition: Balmer, Lawrie and Co., 5, Clive Street, Calcutta).—Preserved Meats; Soups; Fish, &c.

Methuen (James) & Co., Leith, Scotland.—Preserved Fish in Tins.

These goods have obtained prize medals at all Exhibitions where they have been shown.

The Agents for India are Messrs. Eyre and Spottiswoode, of London.

Morthem Preserved Butter Co.—Preserved Butter.

This Company claim to have introduced a new method of preservation, by means of which Butter may be kept fresh in all climates, always opening fresh and sweet.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Moir (John) & Son, Limited, 148, Leadenhall Street, London.—Preserved Meats and Soups; Essences and Extracts; Preserved Fresh Fish, Dried Fish, Salted Fish; Preserved Fruits in Syrup; Jams, Jellies, Marmalade, Condiments, Pickles, &c.

The articles exhibited, as mentioned in the subjoined list, are preserved by Messrs. John Moir & Son, Limited, specially for use in warm climates:—

Potted Meats;

Bacon (Wiltshire) in tins;

Lunch Tongues, Sheeps' Tongues, Ox Tongues;

Beef Tea in quart bottles;

Soups, including specialities in Fish Soups, as shown at the Great International Fisheries Exhibition in London, Mulligatawny Fish Soup, Bouillabaisse, Sturgeon, Clam Chowder;

Herrings—Fresh, Kippered, à la Sardine, Spiced, Fried, Devilled, in Tomato Sauce, in Fennel Sauce, in Shrimp Sauce, Red Herrings, Yarmouth Bloaters; Findon Haddocks, Haddock Roes; Dried Sprats, Russian Caviare; Fresh Sturgeon, Sturgeon Cutlets; Red Mullet in Oil; Sene Sardines;

Cocoa and Milk; Chocolate and Milk;

Bottled Fruits; Jams in Tins; Scotch Jams and Jellies; Table Jellies;

The Seville Orange Marmalade; Breakfast and Luncheon Delicacies; Pâtes, Pickles, Essence of Anchovies;

Fresh Herbs in 4-oz. tins for flavouring purposes;

Purée of Cauliflower;

Peas, Tomatoes, Asparagus, Peaches, Apples, Pears, New Potatoes.

Five Prize Medals (London, Vienna, and Paris Exhibitions) have been secured by the Firm.

Head Offices:—148 & 150, Leadenhall Street, London.

Factories: — London; Aberdeen; Seville; and Wilmington, Delaware, U.S.A.

Nestle (Henri), 9, Snow Hill, London.—Milk Food for Infants; Condensed Swiss Milk.

Osborne (Charles) & Co., London. —Vinegar.

"Royal" Vinegar, spiced, for table use and pickling, guaranteed free from adulteration, and thus well adapted for use in the Indian market, is the special manufacture of this Firm.

The Sole Export Agents are Messrs. Eyre and Spottiswoode, of London.

Prevet (C.) & Co. (late CHOLLET & Co.), 134, Fenchurch Street, London. — Dried and Compressed Vegetables; Condensed Soups.

Siberian Packing Co., London. —Tinned Tongues; Tinned Fish.

These Tongues are carefully preserved in brine, and when opened after exportation to any part of the world, guaranteed to be found in good condition, with their peculiarly delicate flavour unimpaired.

The Sole Export Agents are Messrs. Eyre and Spottiswoode, of London.

Societé Generale de Produits Alimentaires, 23, Rue Richer, Paris; and 101, Leadenhall Street, London.—Preserved Butter; Sardines in Oil; Preserved Vegetables.

Stollwerck Brothers, Cologne (per Kuhner, Hendschell & Co.), 145, Cannon Street, London.—Chocolate; Confectionery.

Symington (Thos.) & Co., Edinburgh.—Essence of Coffee.

This Firm claims for the Essence of Coffee exhibited, that it retains its flavour in a marked degree, has good substance, and is always ready for immediate use.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Symington (W.) & Co., Bowden Steam Mills, Market Harborough.—Pea Flour; Pea Soup; Egyptian Food; Dandelion Coffee.

Trier, Mayer & Co., 47, High Street, Borough, London.—Glucose; Saccharines; Hops.

Tulloch (William) & Son, London. —Cocoa; Chocolate; Nectar; Jams; Jellies; Confectionery; Tinned Fruit; Table Jellies; Bottled Fruits; Pickles.

The Dutch Cocoa of this Firm is recommended by nearly three thousand medical men for its purity and nourishing properties.

Nectar, as exhibited, when combined with soda or other aërated water, makes a most delicious, refreshing, and invigorating drink.

Jams and Jellies are sent out in hermetically sealed tins, and are guaranteed to withstand all climates.

The Confectionery shown is manufactured only from refined sugar, without adulteration of any kind or admixture of glucose. It is particularly well suited for the Indian market, where it is already well known.

The Tinned and Bottled Fruits packed by this Firm are specially selected in proper season, and carefully put up at the orchards under the personal supervision of one of the principals.

The Agents for India are Messrs Eyre and Spottiswoode, of London.

Webb (Jubal), 73, High Street, Kensington, London. — Cheese and Hams specially selected for exportation.

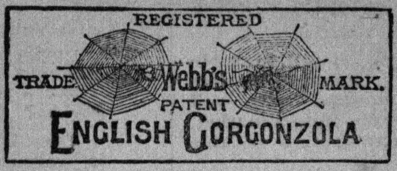
Ackerman (Laurance), 41, Crutched Friars, London.—Sparkling Saumur Champagne.

Bodega Co., Limited (J. H. ROGER, Manager), 11, South Exchange Place, Glasgow.—Old Scotch Whisky.

Booth & Co., London.—Old Tom Gin.

(*See Descriptive Notice.*)

Webb (Jubal), Kensington High Street, London.—Cheese and Hams specially selected for exportation.



The Cheeses included in the Collection exhibited are as follows:—

ENGLISH CHEESE.

STILTON
(*made principally in Leicestershire*).

GORGONZOLA
(*made under the Exhibitor's* Patent). This Cheese has taken several highest Prizes.

DOUBLE GLOUCESTER.

CHEDDAR
(*made principally in Somersetshire*). Specially fine.

NORTH WILTS
(*for Shipping*).

CHESHIRE.

FRENCH CHEESE.

ROQUEFORT
(*an old and celebrated Cheese*).

ITALIAN CHEESE.

GORGONZOLA
(*Jubal Webb's Champion*).

PARMESAN
(*four years old*).

AMERICAN CHEESE.

PALE.

COLOURED.

DUTCH CHEESE.

EDAM.

GOUDA.

NORWEGIAN CHEESE.

SPECIMENS OF CHEESE MADE IN NORWAY.

SWISS CHEESE.

GRUYERE
(*These Cheeses are frequently made up to 2½ cwt.*)

SCHABZIGER
(*a Herb Cheese used for grating*).

HAMS.

SMOKED YORK HAMS.

PALE YORK HAMS.

Nearly forty Medals have been awarded at the various Exhibitions to Mr. Jubal Webb:—

Two Special Gold Medals, London, 1877 and 1878;

"Champion Medal" for the best Cheese, 1881, awarded in respect of an Italian Gorgonzola, as being superior to every other Cheese of any kind or make;

First Prize Silver Medal (Highest Award), British Dairy Farmers' Association, 1881, for best Cheese, "Any Variety Class," which was taken by New Zealand Cheese, Exhibited by Mr. Webb;

Two First Prizes, and one Second, International Dairy Show, New York, 1878;

Gold Medal, New Zealand International Exhibition, 1882;

First Prize English and Foreign Cheese, at the Show of the British Dairy Farmers' Association, London, October, 1883;

At the Royal Irish Agricultural Society's Exhibitions, Mr. Jubal Webb has officiated as Juror.

Photographs of Mr. Jubal Webb's Exhibits at other Exhibitions are shown on the present occasion.

The Exhibitor has been appointed Purveyor of Cheese and Hams to the Refreshment Department of the Calcutta Exhibition.

Booth & Co., London.—Old Tom Gin.

TRADE MARK.

This brand of Old Tom Gin is considered to be the finest ever produced. Messrs. Field, Son & Co., who also exhibit in this Section, are the Sole Export Agents.

The house of Booth and Co. was first known under its present name about the year 1750, when it was in the hands of Philip Booth, but whether the date mentioned marks the foundation of the business or a change in its administration is uncertain.

Sir Felix Booth, who succeeded to the business in 1818, carried on most extensive distilling operations, being at one time proprietor and actual manager of the rectifying house in Smithfield, a brewery and malt distillery at Brentford, two Scotch whisky distilleries, a large brandy distillery, and a vinegar distillery.

It was by Sir Felix Booth that scientific principles were brought to bear on the art of distilling, his chemical knowledge, which was sufficiently extensive to cause his election as a Fellow of the Royal Society, enabling him to make many improvements of the most important nature in the production of British spirits.

The public, whose taste had been vitiated by the impurities to which they had been accustomed, resented at first what they considered the want of "body" in Booth's gin, consequent upon its freedom from fusel oil, but this prejudice of course died out when the superiority of Booth's Gin over others in the most essential particular, purity, was made clear.

Until a few years ago Messrs. Booth and Co. obtained all their water from the New River, but now secure an abundant supply by means of an artesian well. This well goes through London clay and the blue lias to the chalk and flint. The water is thus of excellent quality.

Cathcart (G. & E.), Ayr, Scotland.—Old Scotch Whisky ("Carrick Blend").

Corelli (A. H.) & Co., Lisbon Buildings, Victoria Street, Liverpool (Agent at Exhibition: J. Crowder).—Irish Whisky (H. Thomson & Co.), Scotch Whisky (Rob. Brown), Champagne (Jules Camuset).

Cutler, Palmer & Co., 3a, New London Street, London; and Calcutta.—Wines; Spirits; Cordials.

Drury (Henry Dru), Madeira (per SECRETAN, CAMPBELL & Co., 24, Rood Lane, London). — Madeira Wines.

Dunville & Co., Limited, Royal Irish Distilleries, Belfast, Ireland.—Old Irish Whisky.

Falkner (Francis), 83, Grafton Street, Dublin; and Charing Cross, London.—Irish Whisky.

(*See Descriptive Notice.*)

Field, Son & Co., 28, Mincing Lane, London.—Spirits; Liqueurs.

(*See Descriptive Notice.*)

Ford (William) & Son, Leith, Scotland.—Scotch Whisky (blended).

The Whisky exhibited includes the "Collie" Brand, first quality, the "Castle" Brand, second quality, the "Ruby" Brand, third quality.

These Brands are well known in foreign markets. They are blended in bond from the produce of the finest distilleries in Scotland.

The Sole Export Agents are Messrs. Eyre and Spottiswoode, of London.

Gilbey (W. & A.), Oxford Street, London.—Wines; Spirits.

(*See Descriptive Notice.*)

Grant (Thomas), Maidstone, Kent.—Morella Cherry Brandy.

Gulliver (Samuel) & Co., Aylesbury.—Whisky Curaçoa.

(*See also other entry in this Section.*)

Falkner (Francis), 83, Grafton Street, Dublin ; and Charing Cross, London. —Old Irish Whisky.

This Whisky was first made in Dublin in the year 1780. Its refined flavour is imparted by age only, and it possesses, in the highest degree, all the characteristics of the finest Spirit. It is distilled by the most approved method, from the best materials only, and being matured in bond for many years, all the unpleasant flavour and unwholesome properties are eliminated by the process of time. In much of the imitation Whisky now exported the imperfections of new Spirit are disguised by the additions of flavouring ingredients, so producing an article which, however palatable, must be injurious to health.

REAL IRISH WHISKY, when partaken of in moderation, produces exhilaration, followed by no unpleasant consequences ; no injury to digestion, discomfort or headache.

Taken at meals, diluted with cold water ; as punch, with hot water ; or with aërated waters of all kinds, it forms a valuable aid to digestion.

It is constantly recommended by the Medical Profession as the most wholesome and acceptable of all Alcoholic stimulants.

The Whisky, as now exhibited, has been supplied to the following Naval and Military Messes and Clubs in the United Kingdom and the Colonies :—

MILITARY MESSES.

10th (Lincolnshire Regt.)
18th Royal Irish ,,
9th Norfolk ,,
39th Brigade Depot
25th (King's Own Borderers)
17th Lancers
31st Brigade Depot
14th (West Yorkshire Regt.)
86th (Royal Irish Rifles)
90th (Scottish Rifles)
12th Brigade Depot
75th (1st Gordon Hghldrs.)
4th King's Own (Royal Lancaster)
100th (Leinster Regt.)
39th (1st Dorsetshire)
Royal Artillery
(In India & Great Britain
18th Hussars)
76th (West Riding Regt.)
82nd (2nd S. Lancashire)
40th (1st South Lancashire)
East Surrey Regt.
59th (2nd East Lancashire)
47th (N. Lancashire Regt.)
14th (Prince of Wales' Own)
48th (Northamptonshire)
2nd (Suffolk)
Durham Light Infantry
67th Brigade Depot
97th (Royal West Kent)
Royal Dragoons
King's Own Rifles
18th Hussars
Brigade Canteen Crrgh. Cp.

NAVAL MESSES.

H.M.S. Wild Swan
,, Lord Warden
,, Achilles
H.M.S. Curacao
,, Valiant
,, Belleisle
,, Audacious
,, Swiftsure
,, Orion
,, Linnet
,, Arab

CLUBS.

The Reform, London
Union, London
Wyndham, London
New University, London, Kildare Street, Dublin
The Thatched House, London
Clare Club
The Royal St. George Y.C., Kingstown
Galway Club

The following awards have been obtained in respect of this Whisky :—*New Zealand International Exhibition*, 1882 (GOLD MEDAL) ; *Amsterdam International Exhibition*, 1883 (Highest Award).

Small Sample Bottles may be obtained at the Stand in the Exhibition building.

The Exhibitor is sole purveyor of Irish Whisky to the Exhibition Restaurant.

Field, Son & Co., 28, Mincing Lane, London.—Spirits; Liqueurs.

TRADE MARK.

BOOTH & CO.

The Exhibitors are the Sole Export Agents for Messrs. Booth & Co.'s celebrated Old Tom Gin, considered to be the finest ever produced.

The Firm of Field, Son & Co. was established in 1802, and now carries on a most extensive export business in Spirits and Liqueurs. Its Trade Mark is a Lion, as illustrated below:—

TRADE MARK.

FIELD, SON & CO.

Amongst the Specialities of the Firm may be mentioned:—

SCOTCH WHISKY, a blend of the finest Whiskies (guaranteed pure malt);

RUM, selected from the finest Jamaicas;

GINGER BRANDY, an excellent Stomachic, invaluable in hot climates;

ORANGE BITTERS, a pure and wholesome Bitter. Mixed with Old Tom or Sherry it makes an excellent tonic.

Messrs. Field, Son & Co. have been appointed Purveyors of Gin to the Exhibition Restaurant.

Gilbey's (W. & A.), Pantheon, Oxford Street, London.—Wines and Spirits.

The Trade Mark and Signature, as beneath, appear on all corks and labels.

The advantages claimed for this brand are:—

Purity; Best value;

Full measure of six bottles to the Imperial Gallon.

Messrs. W. & A. Gilbey are the largest Wine and Spirit Merchants in Great Britain, their sales for 1882 being 1,676,289 gallons, which is equal to one-eighteenth part of the Wine, and one-fortieth part of the Spirit sales, of the whole trade.

The sole Wholesale Agents for Bengal, N. W. P., and Assam are THE PLANTERS' STORES AND AGENCY CO., LIMITED, London, Calcutta, and Assam.

Gutierrez, Flugel & Co., 26 and 28, Mark Lane, London; and Jerez de la Frontera, Spain.—Sherry.

Hedges & Butler. Chief Office: 155, Regent Street, London; Bonded Stores, Crescent Vault, London Docks; Branch Office, 30, King's Road, Brighton; Shipping Cellars, Jerez de la Frontera (Spain).—Wines and Spirits.

(*See Descriptive Notice.*)

Hedges & Butler, Chief Office, 155, Regent Street, London; Bonded Stores, Crescent Vault, London Docks; Branch Office, 30, King's Road, Brighton; Shipping Cellars, Jerez de la Frontera (Spain).—Wines and Spirits.

In the selection of Wines for warm climates, great care and skill are necessary. The samples exhibited by this firm indicate the quality of their consignments to the East. These consist chiefly of SHERRY, PORT, and CHAMPAGNE.

The SHERRY is from the Bodegas of the firm at Jerez de la Frontera, the carefully selected produce of the best districts, well matured and containing much less spirit than is usually found in this kind of wine. Some of the brands do not exceed 25 degrees of alcoholic strength; these are from the pago of Balbaino. Other brands now exhibited are dry wines of delicate character, from the pago of Macharnudo; Manzanillas of superior quality; rich soft golden wines of nutty flavour, and Vinos Finos, Amontillados, and Olorosos of great age, from the choicest vineyards of the Jerez district.

Two of the samples of PORT are wines suitable for hospital use. Several others from the best vineyards of the Douro district are old wines, ranging from fine to very choice, specially suitable for India, so matured in wood as not to be liable to form a crust.

A very elegant "très sec" CHAMPAGNE, from their own reserves at Epernay, is shown by the exhibitors, and may be had in registered flagons holding two bottles each. These flagons are a great ornament to the dinner table and very suitable for use at Officers' Messes and Picnics.

A very ingenious contrivance for preventing pilfering has been adapted by the exhibitors, and may be seen applied to casks of Scotch and Irish Whiskey now exhibited.

The business of the firm of Hedges & Butler was established more than two centuries ago, during the reign of Charles II., the site of the original house being Hungerford Street, Strand, now occupied by the Charing Cross Railway Station. This house remained in the possession of the firm until 1832.

A tablet let into an oak table now standing in the counting-house at Regent Street, bears the following inscription:—"This table and two armchairs were made from the oak post which supported the corner of the old house at Hungerford Street, Strand, A.D. 1667." The ledgers of the firm for generations back are still preserved, and contain many interesting records of goods supplied to distinguished persons of the time. The Earl of Holderness in 1742 gave a bill for goods supplied, and this bill being discovered in their possession many years afterwards by Messrs. Drummond, the bankers, was forwarded by them to the existing firm, who caused it to be framed for preservation. At the Regent Street premises are wines in great quantity and of considerable value, some of which have been in the bins many years.

Large as are the premises at Regent Street, those at Jerez are far more extensive.

Messrs. Hedges & Butler are Purveyors to Her Majesty the Empress of India, and His Royal Highness the Prince of Wales. They are represented at the Calcutta Exhibition by Messrs. J. M. Johnson & Sons, Limited, whose offices are in the British Court of the Exhibition Buildings.

Holland & Co., Deptford Distillery, London.—Gin.

Ind, Coope & Co., Burton-on-Trent, Staffordshire; and Romford, Essex.—India Pale Ale and Romford Light Bitter Beer in Bottles.

(See Descriptive Notice.)

Kantorowicz (Hertwig) (per EYRE and SPOTTISWOODE, London).—Liqueurs.

These Liqueurs have been found of great service in cases of Asiatic Cholera, &c.

Kirker, Greer & Co., Belfast; and Glasgow.—Irish Whisky; "Lochdhu" Scotch Whisky.

Mackie & Co., 5, Dixon Street, Glasgow (Agents for the Exhibition: Balmer, Lawrie and Co., 5, Clive Street, Calcutta).—Whisky.

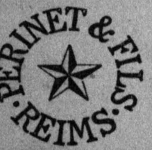
Maignen & Co., 22 and 23, Great Tower Street, London.—Sparkling Sauterne.

Mathews (Richard) & Co., 92 and 94, Albany Street, London.—"Carlton" Whisky.

(See Advertisement.)

Müller (Andr.) (per D. W. MACLACHLAN & Co., 41, Seething Lane, London); Bremen, Germany.—Lager Beer.

Périnet et Fils, Reims, France (per London House, JOHN BARNETT & SON, 36, Mark Lane, London).—Champagne.

TRADE 

MARK.

The Wines of this brand as exhibited have a high reputation in Europe, and are especially esteemed in England, where Messrs. Périnet et Fils command a large Trade.

They are being introduced into Bengal and Central India under the auspices of Messrs. G. F. KELLNER & Co., 5, Bankshall Street, Calcutta.

Porter (Robert) & Co., 77 and 79, Pancras Road, London.—Bottled Ale (Bass & Co.'s); Stout (Guinness & Co.'s); Cider (Apple Brand).

TRADE

MARK.

The "Oriental" Ale exhibited is brewed by Messrs. Bass & Co., and bottled by the Exhibitors especially for consumption in hot climates. It is a light, delicate, and refreshing beverage, and possesses tonic properties. The intoxicating effects which follow the drinking of stronger ales do not result from its use.

The "Apple" Brand Cider, as exhibited, has been declared by one of the most eminent analysts to be perfectly pure and wholesome. It is especially suitable for consumption in tropical countries.

Messrs. Robinson, Morrison, & Co., of 104, Clive Street, are the Sole Agents of the Exhibitors at Calcutta.

(See Advertisement.)

Rademakers (P.) & Co. (per D. W. MACLACHLAN & Co., 41, Seething Lane, London); Delfshaven, Near Rotterdam; and Schiedam, Holland.—Geneva.

Sell (D.) & Co., London.—Whisky; Brandy.

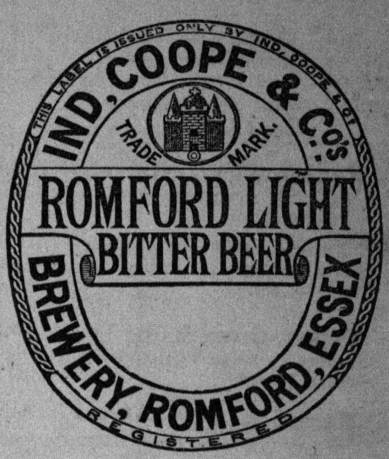
The genuine old Scotch Whisky, as exhibited, has been blended and matured in bond by the exporters. It is guaranteed to be perfectly pure, and a blend of five and seven years old Whisky. It is free from fusel oil and other impurities.

The "Three Star" Brandy is a very fine old liqueur brandy, largely exported by the exhibitors.

The "One Star" Brandy is believed to be unsurpassed by any now being shipped at the price.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Ind, Coope & Co., Burton-on-Trent, Staffordshire; and Romford, Essex. India Pale Ale and Romford Light Bitter Beer in bottles.



The Burton Pale Ales, and the Romford Light Bitter Beers, as exhibited by Messrs. Ind, Coope and Co., are brewed from the finest Malt and Hops exclusively; no "Saccharum" or "Hop Substitute" being used in their manufacture, they are guaranteed to remain sound in the hottest climate.

The Indian and Colonial Agents of the Firm are :—

BOMBAY	Volkart Bros.
CALCUTTA	Mackenzie, Lyall & Co.
COCHIN	Volkart Bros.
CALICUT	Parry & Co.
KURRACHEE	Volkart Bros.
MADRAS	Parry & Co.
COLOMBO	J. R. Bell & Co.
ADELAIDE	Francis Clark & Sons.
BRISBANE	The Queensland Mercantile and Agency Company, Limited.
FREEMANTLE	E. Solomon & Co.
MELBOURNE	Bligh & Harbottle.
MARYBOROUGH	Wilson, Hart & Co.
NEWCASTLE	Chas. F. Stokes & Co.
ROCKHAMPTON	Aplin, Brown & Co., Limited.
SYDNEY	Harbottle, Alsop & Co.
TOWNSVILLE	Raff & Co.
AUCKLAND	Cruickshank & Co.
CHRISTCHURCH	Thomas James Maling & Co.
DUNEDIN	Neill & Co., Limited.
INVERCARGILL	The National Agency and Mortgage Co.
NELSON	John H. Cock & Co.
NAPIER	Murray, Roberts & Co.
WELLINGTON	W. M. Bannatyne & Co.
HOBART	John Watchorn & Son.
LAUNCESTON	Dalgety, Moore & Co.
HONG KONG	Lane, Crawford & Co.
SHANGHAI	Jardine, Matheson & Co.
MANILA	Ker & Co.
PENANG	Friederichs & Co.
ALEXANDRIA	Barker & Co.
CAIRO	Dracatos & Co.
JEDDAH—Red Sea—	Wylde, Beyts & Co.
MAURITIUS	Blyth Bros. & Co.
ZANZIBAR	Smith, Mackenzie & Co.

Siegert (Dr. J. G. B.) & Sons, Port of Spain, Trinidad, West Indies (per KÜHNER, HENDSCHEL & Co.), 145, Cannon Street, London).—Angostura Bitters.

Slater, Rodger & Co., 80, James Watt Street, Glasgow.—Old Scotch Whisky (Thistle Blend).

TRADE MARK.

REGISTERED.

The searching power of chemical analysis (says Mr. J. FALCONER KING, F.C.S., Public Analyst for the City of Edinburgh and Burgh of Leith) cannot detect fusel oil in this Blend; it is free also from methylic alcohol and all forms of metallic contamination; is very pure and of excellent quality for dietetic purposes. The "Thistle Blend," MR. JAMES J. DOBBIE, M.A., D.Sc., Asst. Professor of Chemistry, University of Glasgow, certifies to be exceedingly pure and of the highest possible quality, whilst MR. ROBERT R. TATLOCK, F.R.S.E., F.C.S., Public Analyst for the City of Glasgow, declares it to be pure, genuine, and of superior quality, well aged, really excellent in flavour, and free from all objectionable substances, and DR. ADAMS, President of the Glasgow Medico-Chirurgical Society, Glasgow, pronounces it superior to nine-tenths of what is sold as Brandy. He says further that he has seldom examined a sample which, age considered, equals the "Thistle Blend."

The Exhibitors' Agents in Calcutta are Messrs. Turner, Morrison and Co.

Symons (John) & Co., The Plains, Totnes, Devon; and Ratcliff Cross, London.—Cider; "Symonia" (Superior Quality Cider); Champagne and Moselle Wines ("Symonia" Brand).

(See Descriptive Notice.)

Turnbull & Wood, 26, West Grainger Street, Newcastle-on-Tyne.—The "Glen" Whisky (blend of old Highland Whiskies).

Smith & Gibb, Glasgow; Liverpool; and Manchester.—Highland Malt Whisky ("Argyle and The Isles").

These Whiskies are specially selected from the numerous islands and the mainland of Argyleshire.

At the New Zealand Exhibition (Christchurch), 1882, Messrs. Smith & Gibb were awarded the only Gold and Silver Medals for Scotch Whiskies against thirty-nine competitors.

The sale of these Whiskies has been carried on by the Exhibitors for nearly sixty years. Shipments are made to Australia, the Cape of Good Hope, the West Coast, West Indies, Norway, Sweden, and other parts of the World, including India and New Zealand, where Messrs. Smith and Gibb have the following Agents: Calcutta, Messrs. Binning & Co.; Madras, Messrs. Gordon, Woodroffe & Co.; Bombay, Messrs. Ritchie, Stewart & Co.; New Zealand, Messrs. Gillett Brothers.

Vaughan-Jones (E.), 17, Water Lane, London; and 63, West Regent Street, Glasgow.—Whisky (The well-known "C.I.G." Scotch Whisky, &c.); Gin; Rum; Liqueurs, &c.

TRADE MARK.

At the Sydney International Exhibition in 1879 three First-Class Awards (one with Special Commendation) were obtained by the Exhibitor, who also received Eight Awards at the Melbourne International Exhibition in 1880 (five being first-class), with four Bronze Medals and a Silver Medal.

The Exhibitor's Agents at the Exhibition are: Messrs. Sinclair, Hamilton & Co. (Mr. Hugh C. Robertson), 35, Clive Street, Calcutta.

Symons (John) & Co., The Plains, Totnes, Devon; and Ratcliff Cross, London.—Cider; "Symonia" (Superior Quality Cider); Champagne and Moselle Wines ("Symonia" Brand).

The Cider, as now exhibited, is pure, pungent, and delicious. It possesses the true flavour of the apple. This flavour, as well as clearness and brightness, the Cider retains under every condition of climate, and is, therefore, strongly recommended for use in the colonies.

Large quantities of Cider are produced in England, notably in Devonshire, Somersetshire, and Herefordshire. The first-named county is, however, pre-eminently the cider district of the United Kingdom, and there the name of the Firm now exhibiting stands high amongst the best manufacturers.

The term "Symonia" is used in connection with a special brand of Cider of superior quality, also for Moselle and Champagne Wines.

Messrs. John Symons and Co. are Purveyors of Cider to the Exhibition Refreshment Department.

The Exhibitors desire to secure the services of responsible Agents.

Usher (Andrew) & Co., West Nicolson Street, Edinburgh.—"Old Vatted Glenlivet" Whisky.

ANDREW USHER & Co.'s
OLD VATTED

REGISTERED **GLENLIVET WHISKY** TRADE MARK.

The peculiarities of this Whisky are that it is fully matured in sherry casks, has less flavour than most other kinds of Whisky, and therefore is a lighter and safer beverage.

The Whisky is bottled in the Shippers' own Bonded Stores at Edinburgh, under the supervision of Her Majesty's Excise officers. Each bottle is guaranteed to contain the sixth part of an imperial gallon; each case of twelve bottles two imperial gallons.

"Old Vatted Glenlivet" is a blend composed of some of the finest Whiskies produced in Scotland. The basis of this blend is the celebrated whisky distilled by Messrs. George and John Gordon Smith, at the only Glenlivet Distillery, Glenlivet, Ballindalloch.

Messrs. Usher are the sole agents for the Distillery.

With regard to the quality of the Whisky exhibited attention is directed to the testimonial appended:—

Analytical Laboratory,
Surgeons' Hall, Edinburgh,
26th July, 1883.

I have made a careful analysis of Messrs. *Andrew Usher and Co.'s Old Vatted Glenlivet Whisky*, and find such to be of excellent quality, being thoroughly matured and free from objectionable products.

It is a very pure spirit, and either with ordinary or aërated water forms a highly palatable and wholesome beverage.

(Signed)
STEVENSON MACADAM, Ph.D.,
Lecturer on Chemistry.

The London and Export Agents are FRANK BAILEY & Co., 59, Mark Lane; the Agents at Calcutta, and Bombay, CUTLER, PALMER & Co.

Wright & Greig, 90, West Campbell Street, Glasgow. — "Roderick Dhu" Old Highland Whisky.

The "RODERICK DHU" OLD HIGHLAND WHISKY is guaranteed by the Exhibitors to be a spirit of the very highest class, kept for five years in bond previous to bottling; it is fully matured, and entirely free from the essential oils present in all new whiskies. It possesses a fine bouquet, rich and full; qualities only to be produced by the skilful blending of the products of various Highland Distilleries. Dr. Wallace, City Analyst, Glasgow, certifies the "Roderick Dhu" to be a well-matured spirit of excellent flavor — free from all impurities; and it is strongly recommended by the medical faculty generally as a therapeutic agent.

Many high awards have been received in respect of this Whisky, amongst which may be mentioned:—Gold Medal, Adelaide Exhibition, 1882: Prize Medal, Christchurch Exhibition, 1883.

"THE CREAM OF SCOTCH WHISKY."

Vitali (Egidio), 5 and 6, Great Winchester Street Buildings, London; and Sondrio, Italy. — Italian Wines; Italian Sparkling Wines; Vino Vermouth di Torino.

Wachter & Co., 72, Mark Lane, London; and Epernay, France.—Champagne ("Royal Charter" Brand).

John Watkins, Hereford.—Cyder and Perry.

This Firm have fitted up extensive works for the purpose of bottling Cyder for Export, and have given special attention to its preparation for India.

Messrs. Eyre and Spottiswoode are the Sole Export Agents.

Barnett & Foster, "Niagara" Works, 26, Eagle Wharf Road, London. — Ingredients, Essences, Flavourings, &c., for Aërated Waters.

Every description of Saccharine Drinks, such as Lemonade, Ginger Beer, Ginger Ale, Orangeade, are put up by the Exhibitors into a form ready for immediate use. When sending to remote parts the sugar or syrup is omitted, the cost of carriage making fluid syrups very expensive. The "Concentrated Compounds" contain all the ingredients (except sugar) for the manufacture of the above-named drinks, and produce a very superior article. These Compounds are prepared by special appliances, by which the aroma of the fruit is fully retained. They save time in the factory, and the production is more uniform in quality than by any other system; it is also cheaper than the so-called "Soluble Essences," which, in the process of clarifying and filtering (to render them soluble) are robbed of their flavour and aroma.

(*See also Sections D. & G.*)

Bratby & Hinchliffe, Sandford Street, Ancoats, Manchester.—Essences and Extracts for making Aërated Waters; Ginger Ale; Lemonade; Fruit Syrups, &c.

The Essences, as now exhibited, mix perfectly bright with aërated water or syrup. They are prepared specially for manufacturers of aërated waters, and confectioners, by an entirely new process.

The Fruit Syrups are the ready-prepared concentrated ingredients for manufacturing high-class aërated waters. They are invaluable to those who desire to manufacture aërated drinks but possess little knowledge of the business, the only operation necessary in order to produce the required beverages being to fill with aërated water a bottle containing a given quantity of the Syrup.

Two teaspoonfuls of the Fruit Syrup, with the addition of a tumbler of water, aërated water, or spirits, will produce a pleasant, refreshing, and invigorating beverage.

The Syrups are suitable for all climates and all seasons.

(*See also Sections D. and G.*)

Cantrell & Cochrane, Dublin; and Belfast.—Aërated Waters; Natural Waters; Aromatic Ginger Ale; "Sparkling Montserrat;" "Club Soda," &c.

The products of this Firm have been awarded twenty-one Gold and other Prize Medals, and have secured the highest commendations from members of the Medical profession, Public Analysts, and Analytical Chemists.

THE AROMATIC GINGER ALE, as now exhibited, is perfectly free from alcohol, as are all the other waters manufactured by the Firm.

THE CLUB SODA, originally prepared specially for the use of Clubs, has now become a favourite form of this beverage with the public generally.

THE SPARKLING MONTSERRAT is made from the Lime Fruit of the island of Montserrat. It combines an aromatic flavour with the acidity of the fruit, is refreshing to the system, and agreeable to the palate, the taste being heightened by sweetening.

Seltzer Water, Potass Water, Lithia Water, Lemonade and other Drinks are also included in the Collection.

Corry (Wm.) & Co., Belfast Aërated Water Works, Cromac Springs, Belfast, Ireland.—Mineral and Aërated Waters; Patent Re-carbonated Fluid Magnesia; Concentrated Lemon Syrup, &c.

Gulliver (Samuel) & Co., Aylesbury.—Mineral and Aërated Waters.

(*See also other entry in this Section.*)

Howards & Sons, City Mills, Stratford, Essex.—Chemicals for Soda Water Manufacturers; Citric Acid; Bicarbonate of Soda; Bicarbonate of Potash; Pure Chloride of Sodium.

Chemicals used in the manufacture of Aërated Waters should be PURE; otherwise the flavour of the beverage is impaired.

Messrs. Howards & Sons have secured a large business in England with Soda and Mineral Water Manufacturers, and this they attribute to the great care exercised in order to ensure the highest degree of purity in their preparations.

THE EXHIBITORS ARE MANUFACTURERS OF QUININE SALTS, PHARMACEUTICAL, PHOTOGRAPHIC AND OTHER CHEMICALS, AND ARE CONTRACTORS FOR THE SUPPLY OF CHEMICALS TO H.M. NAVY, TO THE CROWN AGENTS FOR THE COLONIES, AND TO THE AGENT-GENERAL FOR THE CAPE OF GOOD HOPE. They are also MANUFACTURERS OF CINCHONA ALKALOIDS FOR THE INDIAN GOVERNMENT.

The Firm was established in 1798.

The Highest Honours have been obtained at the following International Exhibitions:—London, 1851; Paris, 1855; London, 1862; Paris, 1867 (Gold Medal).

Price lists are furnished on application.

(*See also Sections B., C. & F.*)

Ross (W. A.) & Co., Belfast, Ireland.—"Royal Belfast" Ginger Ale and other Aërated Non-alcoholic Drinks.

(*See Descriptive Notice.*)

Ross (W. A.) & Co., Belfast, Ireland. — "Royal Belfast" Ginger Ale and other Aërated Non-alcoholic Drinks.

This Collection of Aërated Non-alcoholic Beverages includes:—

Ginger Ale;
Lemonade;
Soda Water;
Potash Water;
Lime Juice Cordial;
Raspberry Vinegar;
Orange Bitters.

THE EXHIBITORS, WHO HAVE BEEN APPOINTED PURVEYORS TO THE REFRESHMENT DEPARTMENT OF THE CALCUTTA EXHIBITION, RECEIVED THE ONLY GOLD MEDAL FOR AERATED WATERS OF BRITISH MANUFACTURE AT THE RECENT NEW ZEALAND INTERNATIONAL EXHIBITION.

Skinner (Thomas) & Co., Exeter. —Phosphodone; Orange Champagne.

These Beverages possess considerable tonic properties. They are drunk at most of the principal hotels, the private consumption being also large.

Messrs. Eyre and Spottiswoode, of London, are the Sole Export Agents.

Summers (Wm.) & Co., Milk Street, Bristol. — Aërated, Mineral, and other Waters.

These Waters are guaranteed by the Exhibitors to be of unexcelled quality and absolute purity. They are highly recommended by the medical profession, and largely patronised by the Royal Family and the nobility.

The exhibit includes:—

Soda Water-beverage and Soda Water Ph.B., Soda Water-beverage with Lime Fruit Flavour;
Potass Water-beverage and Potass Water Ph.B., Potass Water-beverage with Lime Fruit Flavour;
Quinine Water, Howard's Sulphate;
Lemonade, prepared from Fruit;
Seltzer Water, Lithia Water Ph.B.;
Ginger Ale, guaranteed non-alcoholic.

Thomson (D. J.) & Co., St. Anthony's Distillery, Leith, Scotland.—British Wines; Lime Juice Cordial; Liqueurs; Orange Bitters; Old Tom Gin.

This Firm has been engaged during many years in the manufacture of Liquors as exhibited. They desire to call special attention to their Ginger Wine, which is of choice flavour, and is now shipped in large quantities.

Messrs. Eyre and Spottiswoode are the Sole Export Agents.

Wright (Frank), 27, Merton Road, Kensington, London.—Unfermented Wines; Fruit Essences; Syrups, &c.

Aitken (Jas.) & Co., Falkirk.—Beer. Agents: Balmer Lawrie and Co., Calcutta.

Blankenheym & Nolet.—Spirits.

Burgoyne (B.) and Son.—Essences; Extracts; Cordials; Syrups.

Cockburn's, Leith—Very old Highland Whisky. "Extra finest Whisky."

Wright (Frank,) Manufacturer of Unfermented Wines, Fruit Essences, Port Wine with bark, unfermented and unintoxicating, 27, Merton Road, Kensington, London.

This unfermented wine is guaranteed to be Pure Grape Juice, and free from Alcohol. It has stood the test of 25 years' continuous sale in every climate, and is now used in upwards of 2,000 Churches of all denominations for sacramental purposes.

Honourable Mention for good quality, International Exhibition, 1862.

Agent for India; Rev. J. Gelson Gregson, Secretary, The Soldiers' Total Abstinence Association, Benares.

Mackay (A. and B.) Glasgow.—"Glenfalloch" Whiskey.
Agents: Struthers and Co., Calcutta.

Murdock (A) & Co., Glasgow.—Fine Old Highland Whisky.

Robinson, Morrison & Co., 104, Clive Street, Calcutta.—*A Collective exhibit:* Agents and Importers—
Anôts Frere's Cognac Brandy.
Barnett Fils' Cognac Brandy.
Nolet's HOLLAND "Signet" Gin;
Monogram Gin;
Aromatic Schnapps.

Slater, Rodger and Co.—Thistle Blend Whiskey. Agents: Turner, Morrison and Co., Calcutta.

Smith (G.) and Sons, Glasgow.—Model of *S.S.* "*City of Calcutta.*"

Tennent (J. and R.), Well-Park Brewery—Pale Ale; Stout.
Agents: Turner, Morrison and Co., Calcutta.

Vannan (A. and R.)—"Old Highland Whisky."

Section I.

AGRICULTURE AND HORTICULTURE.

(*CLASSES* 137 *to* 143.)

Carter (James) & Co., 237 and 238, High Holborn, London.—English Home-grown Seeds for the Indian Markets, in Hermetically Sealed Boxes.

Oakshott (Edward George) & Co., Reading.—Seed Corn.
(*See Descriptive Notice.*)

Packard (E.) & Co., Ipswich.—Concentrated Superphosphates and other Artificial Manures; Solid Phosphoric Acid for the Purification of Sugar Cane Juice.
(*See Descriptive Notice.*)

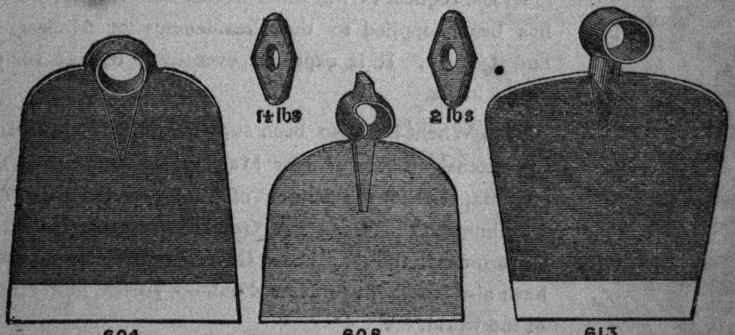
Sutton & Sons, Reading.—Seeds.
(*See Descriptive Notice.*)

Doulton & Co., Lambeth, London.—Channel Pipes and Copings for Sewer Conduits used in Irrigation; Sluice Valves for the same; Garden Edging; Vases; Terminals; Fountains, &c.

At all the principal International Exhibitions, held in London, Paris, Vienna, Philadelphia, Sydney, Melbourne, and Amsterdam, the Firm of Doulton and Co. received the highest awards. These awards included the Grand Prix at Paris, and the Legion of Honour.

(See also Sections A., C., D., F. and G.)

Duffield & James, Alexander Stamping Works, Monmer Lane, Willenhall.—Solid Eyed Hoes, Hammers, &c.



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Every hoe manufactured by the Exhibitors is warranted of correct size and shape. A large plant of machinery is exclusively devoted to this work, which is a speciality of the firm.

Messrs. Duffield & James are the Sole Patentees of the Solid Throated Fittings for Gas, Water and Steam, as also of the Solid Eyed Hoes above mentioned. The fittings are guaranteed to bear a pressure of 1,000 lbs. per square inch.

The Exhibitors also take up large contracts for best Engineers' Nuts, Ironmongery, and Coach Stampings in both Iron and Steel; also all kinds of General Stampings and Forgings for Railway Companies, &c.

(See also Section D.)

Oakshott (Edward George) & Co., Reading, Berks.—Seed Corn.

OAKSHOTT'S CHAMPION WHITE WHEAT, or Six-Chested Variety.

Seed Corn is especially selected for various purposes, and grown on different soils. The importance of growing selected stocks cannot be over-rated. To this branch of agriculture Messrs. E. G. Oakshott and Co. have given their closest and continuous attention, with results exceeding expectation. Most gratifying reports have reached them from every part of England, as well as from the continent of Europe, and elsewhere abroad. It is by careful cultivation and selection, followed up every year, that the Seed Corn as now shown is produced.

The specialities to which attention is particularly requested by the Exhibitors are, OAKSHOTT'S CHAMPION PRIZE WHITE WHEAT and OAKSHOTT'S GOLDEN DROP RED WHEAT.

The CHAMPION PRIZE WHITE WHEAT was introduced by the Firm in 1880, and has been improved every year, being now considered as a specimen of the finest cultivation. The wheat is of excellent quality, very robust habit, grows splendid stiff straw, and is well suited for either hot or cold climates.

At the request of the India Office, this variety, with others, has been supplied to the Presidencies of Madras, Bengal, and Bombay. It is expected eventually to take the place of native kinds.

This Wheat has also been supplied in large quantities for the extensive farms of Her Majesty the Queen and Empress of India, H.R.H. the Prince of Wales, H.R.H. the Duke of Edinburgh, the Canadian Government, the United States Government, the Japanese Government. Large quantities have also been sent to New Zealand, Africa, and other parts of the world.

The growing of Seed Corn and the improving of the leading varieties of Wheat, Barley, and Oats, exclusively engage the attention of the Firm of E. G. Oakshott & Co.

Priced Descriptive and Illustrated Catalogues may be obtained post free on application to the Exhibitors at the address given above.

Sutton & Sons, Reading.—Seeds; Models of Vegetables, Agricultural Roots, Potatoes, &c.; Specimen Boxes containing Collections of Vegetable Seeds and Flower Seeds suitable for the various climates of India, China and the East, packed by the Exhibitors' New System.

The invention of these boxes by Messrs. Sutton some years since, has quite revolutionised the system by which the English Seed Trade in India was carried on.

The Seeds being packed and the boxes soldered down in a very high temperature ensures their keeping an indefinite time. The screw-cap ensures the perfect conservation of the seeds for later sowing, after the necessary opening of the box to take out the packets needed for the early crop; while the ornamental character of the box used gives it an intrinsic value for many purposes after the seeds are sown.

Messrs. Sutton's knowledge of the requirements of the various districts in India, from long experience, enables them to select such seeds as will best suit the needs of the Indian garden and ensure a good supply of Vegetables and Flowers throughout the season. The remarkable popularity of the system of sending out complete Collections of Seeds invented by the Senior Partner of the Firm, Mr. Martin Hope Sutton, over 50 years ago, together with the great success of their system of packing, has induced many dishonest imitations of the air-tight boxes now used by them for the Indian market, and made exclusively for Messrs. Sutton.

The Exhibitors are therefore compelled to insist upon the importance of buyers seeing that every box has the following device on the lid containing their Trade Mark, which is also to be found on every packet of seeds sent out by them.

Messrs. Sutton have obtained the following amongst other awards:—

The Cross of the Legion of Honour, conferred on Mr. Martin J. Sutton, Managing Partner, for services in connection with the Paris Exhibition, 1878;
Five Prize Medals, Gold and Silver, Paris, 1878;
Ten Prize Medals, Royal Horticultural Society of London;
Silver Medals, Odense, 1863, and Cape Town, 1865;
Two Prize Medals, Paris, 1867;
Gold Medal, Highland Society, 1872;

Silver Medal, Lynn, 1872;
Prize Medals, London and Vienna, 1873;
Prize Medal, Buenos Ayres, 1877;
Gold Medal, Melbourne, 1880;
Silver Medal, Brighton, 1881;
Silver Medals, Cape of Good Hope, Preston, and Canterbury, 1882;
Silver Medal, Liverpool, 1883;
Diplôme d'Honneur at the Amsterdam Exhibition, 1883

Messrs. Sutton are Seedsmen to the following Public Bodies in India:—

The Agri-Horti Societies of India, Madras, Lahore, and British Burmah;
The Government Gardens at Ootacamund, Rangoon, Sealkote, Bangalore, Saharampore; Lingasoogoor; and Belgaum;
The Departments of Agriculture and Commerce, N. W. P. and Central Provinces;
The Municipal Committees of Kamptee, Amritsar, Nani Tal, and Simla;
The Public Gardens of Berhampore, Agra, Bannu, Sirdarpore, Bareilly, Indore, Jeypore, Bilaspur, Rambagh and Amballa;
The Asylums of Ootacamund, Murree and Bareilly;
The East Indian Railway Company;
The Horticultural Gardens at Lucknow and Nagpur;
The Colleges at Rajkimsar and Roorkee;
The Principal Military Stations and Government Prisons.

Agents: Lewis Stewart and Co., Calcutta.

Eagle Edge Tool Company, Wolverhampton.—Plantation Hoes; Spades; Shovels, &c.
(*See also Section G.*)

Edwards (William) & Son, Griffin Works, Wolverhampton; and 27 and 28, King William Street, London Bridge, London (Agents for the Exhibition: Balmer, Lawrie & Co., 5, Clive Street, Calcutta). — Plantation Hoes; Spades; Shovels; Edge Tools; Hammers; Axes; Adzes; Pick Axes; Contractors' Tools; Estate Tools; Mining Tools.

TRADE MARKS.

The Exhibitors are Patentees and Manufacturers of the new All Steel "General Hoe," for hot climates. This Hoe being light and durable, is expected to supersede all others.

They are also the sole Patentees and Makers of Solid Eye Pick Axes, Edge Tools, Hoes, &c., made on an entirely new principle; and manufacturers of Mamooties, Axes, Sledge Hammers, Spades, Pick Axes, Adzes, Stone Hammers, and Shovels.

Machinery on a most complete scale for turning out the American Pattern Shovels and other Tools, enables the Firm to produce in large quantities and of the best quality.

Messrs. William Edwards and Son are the original and only manufacturers of the "Best" quality Horse-shoes.

The Firm was established in 1828.
(*See also Section G.*)

Farmer, Robey, Brown & Co., Limited, Trent Foundry, Gainsborough (Agents at the Exhibition: Ahmuty & Co., Church Lane, Calcutta).—Agricultural Machinery.
(*See also Section G.*)

Fowler (John) & Co., Steam Plough and Locomotive Works, Leeds; and 28, Cornhill, London.—Two 10-HP. Compound Ploughing Engines and Implements used in Cultivation.
(*See Descriptive Notice.*)

Garrett (Richard) & Sons, Leiston Works, Leiston, Suffolk.—Agricultural Machinery.
(*See also Section G.*)

Hadfield's Steel Foundry Company, Hecla Steel Castings Works, Attercliffe, Sheffield.—Steel Castings for parts of Agricultural Machinery, such as Shares, Skifes, Traction Engine Gearing, &c.
(*See also Section G.*)

Hardy Patent Pick Co., Limited, Sheffield.—Agricultural and Plantation Tools.
(*See also Section G.*)

The Johnston Harvester Company, 1 and 2, Chiswell Street, London (Agents at the Exhibition: Sinclair, Hamilton & Co., 35, Clive Street, Calcutta). — Self-Raking Reaping Machine.

Linley (S. & R.), Plough Works, Sheffield.—Scythes; Machine Knives and other Agricultural Tools.

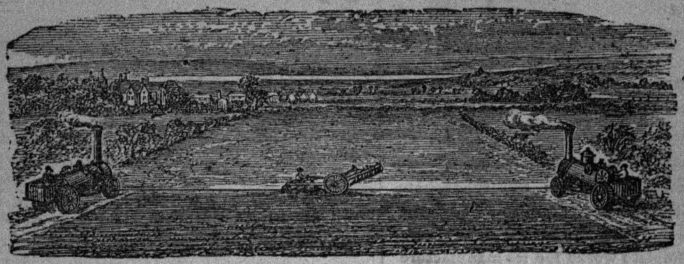
Packard (E.) & Co. Ipswich; and 155, Fenchurch Street, London.—Concentrated Superhosphates and other Artificial Manures; Patent Solid Phosphoric Acid.
(*See Descriptive Notice.*)

Perks (J.) & Sons, Monmore Green Works, Wolverhampton.—Tea Garden Plantation Tools.
(*See also Section G.*)

Richards (Theophilus) & Co., Oozells Street, Birmingham.—Implements and Tools used in Tea Cultivation.

Samuelson & Co., Britannia Works, Banbury, Oxon (Agents at the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta) —Self-Delivery Reaping Machines; Manual Delivery Reaping Machines; Grass Mowing Machines; Lawn Mowing Machines.

Fowler (John) & Co., Steam Plough and Locomotive Works, Leeds; and 28, Cornhill, London.—Two 10-hp. Compound Ploughing Engines, and Implements used in Cultivation.



STEAM CULTIVATING MACHINERY.

One chief advantage of using steam in cultivation is, that it renders the owner comparatively independent of labour; at all times he has an enormous power at his command at a moment's notice, and is thus able to deal with the land when in a proper state for cultivation without the assistance of animal labour. When the ordinary operations of breaking-up are performed at the proper season, it will be found that no *mechanical pulverisation* is required.

Aëration of the soil is one of the principal objects of cultivation, and the rapid motion of a steam-driven implement tears and breaks up the land so that it remains in a loose, rough state; and the atmosphere, acting upon the subsoil as well as on the upper part of the staple, permanently raises the temperature, pulverises the whole by degrees, and thoroughly prepares it for the reception of the seed. All injurious treading by animals is avoided, and the rain and the roots of plants can readily penetrate to the subsoil.

In estimating the expense of steam cultivation, few justly appreciate the great change that it effects in the character of the soil, both as regards drainage and the cost of after-tillage. When land has been once thoroughly broken up by steam, every succeeding operation requires less power; and the experience of those who have used steam proves that one-half only of the usual operations is required.

The Exhibitors manufacture nearly all their Steam Ploughing Machinery on the Double Engine principle, having from large experience found that no other is so efficient and economical.

The experience they have had of steam ploughing in foreign countries, almost all of which have been visited personally in order to study the various conditions and formations of soil, and the different operations and implements used in its cultivation, enables them to supply the kind of machinery most suited to the varied requirements of different countries, while, at the same time, they are in a position for supplying the Machinery with the utmost despatch.

To meet the requirements of foreigners and others who may wish to see steam ploughing in actual operation, arrangements have been made by which, at two or three days' notice, any class of machinery may be seen in operation near Leeds.

If desired, the Exhibitors can apply the compound principle in their Ploughing Engines, by which a saving of 30 per cent. is effected in fuel and water, a most important feature in agricultural machinery, and especially in self-moving Engines.

Implements suitable for every description of soil and for every kind of crop are also made by Messrs. John Fowler & Co.

Double Engine sets of tackle are extensively used in all the sugar-growing countries of the world, including the West Indies, Peru, Sandwich Islands, Fiji, Java, and Queensland. They are also employed very largely in Great Britain, Germany, Austria, Turkey, Egypt, Spain, and France.

References to any of the above countries can be furnished.

NOTE.—In land which has become exhausted through continued cultivation the adoption of steam power has in many instances soon brought back the land under cultivation, and doubled the crops.

Messrs. John Fowler & Co. have been awarded five diplomas of honour at the various International Exhibitions; all the Royal Agricultural Society's First Prizes for Steam Ploughing Machinery; numerous Gold and Silver Cups, Medals, and valuable Money Prizes in all parts of the World; and at the Paris Universal Exhibition, 1878, the Grand Prix and three Prize Medals.

(*See also Section G.*)

Packard (E.) & Co., Ipswich; and 155, Fenchurch Street, London.—Concentrated Superphosphates and other Artificial Manures; Patent Solid Phosphoric Acid.

Samples are shown in this collection of special Manures for Coffee, Tea, Cinchona, Sugar, Rice, Wheat, and other produce.

SUPERPHOSPHATES containing 12, 16, 23, and 45 per cent. of Soluble Phosphoric Acid. Messrs. Packard's Superphosphate Works, at Bramford, are not only the largest of the kind in the world, but were the first complete works for its manufacture ever erected.

PATENT PURE DISSOLVED BONES, a permanent manure suitable for all crops.

PHOSPHATIC GYPSUM, a precipitated form of Gypsum, containing, in addition to Sulphate of Lime, eight to ten per cent. of Phosphates, and very suitable for the soils of Ceylon, and other places, naturally deficient in lime.

These Fertilisers are stated to be generally used in the West Indies, Mauritius, Brazil, Cuba, South Africa, United States, as well as Great Britain.

THE PATENT SOLID PHOSPHORIC ACID, the result of a new invention, is the most concentrated and portable form of phosphoric acid that can be produced. It is invaluable for the following purposes:—AS A MANURE (one ton going further than three tons of the usual best make of superphosphate). AS A SOLVENT for Bone Meal or other available form of bones, enabling the planter to manufacture dissolved bones with great ease, and thus render himself independent of the manure merchant, and of the risk of having spurious manures foisted upon him.

AS A CLARIFIER AND DECOLOURISER OF SUGAR CANE JUICE this material has rendered practicable the new process invented by Dr. Leon Ehrmann and Dr. Icery (both of the Mauritius), whereby high quality sugars are produced, without the necessity of a second process, and by which the costly and undesirable use of bone animal charcoal filters is entirely dispensed with.

Full particulars may be obtained from the agents of the firm, Messrs. J. M. Johnson and Sons, Limited, in the British section.

Saynor, Cooke & Ridal, Sheffield. —Horticultural Implements and Appliances.

The Exhibitors are manufacturers of Pruning, Budding, and Grafting Knives, Vine and Pruning Scissors, Garden Shears, Pruning Saws, Plantation Hoes, and all kinds of Horticultural Tools.

They are represented at the Exhibition by Messrs. T. E. Thomson & Co., 9, Esplanade Row, Calcutta.

(*See also Section D.*)

Sorby (Robert) & Sons, Sheffield. —Horticultural Tools; Plantation Tools, &c.

REGISTERED TRADE MARK.

The Scythes, Sickles, Sheepshears, Steel, Edge Tools, Saws, Files, &c., as exhibited, bearing the "Kangaroo" brand, are manufactured exclusively by Messrs. Robert Sorby & Sons. They are well known in the Indian Market, where the demand for them is increasing.

Purchasers should take care that the name "Robert Sorby" and the "Kangaroo" Trade Mark are stamped upon all goods sold as the manufactures of the Exhibitors, and to beware of imitations, which have been numerous.

Supplies can be obtained through all merchants and shippers having agencies in Great Britain.

THE EXHIBITORS ARE REPRESENTED IN THE EXHIBITION BY MESSRS. T. E. THOMSON & CO., 9, ESPLANADE ROW, CALCUTTA.

(*See also Section G.*)

Taylor Brothers, Adelaide Works, Sheffield.—Chaff and Sugar Cane Knives; Matchets.

(*See also Section G.*)

Wills (A. W.) & Son, Park Mills, Nechells, Birmingham. — Hoes, Picks, Axes, Spades, &c.

(*See Descriptive Notice.*)

Wills (A. W.) & Son, Park Mills, Nechells, Birmingham.—Hoes, Picks, Axes, Spades, &c.

STANDARD

TRADE MARK.

This Firm, one of the oldest in the Edge-tool trade, exhibits Khodalies, Mamoties, Phowrahs, and other hoes suitable both for cultivation of Tea Gardens and for general purposes.

All these have patent SOLID COMPRESSED EYES, produced by processes peculiar to the manufacture as carried on by the Exhibitors, whereby they claim not only that they ensure perfect uniformity and regularity in shape and size, but also great increase in strength.

An Eye thus made possesses the strength of one double the thickness produced in the usual way, and is unbreakable by the application of any ordinary force.

The collection also comprises SOLID STEEL TEA or KHODALIE FORKS, forged from one piece of Cast Steel, without weld in any part, and therefore unbreakable; together with AXES, ADZES, HOOKS, DHAWS, KNIVES and other implements.

The Exhibitors are also makers of SPADES, SHOVELS, and every description of tool suitable for the Indian and for every other Market.

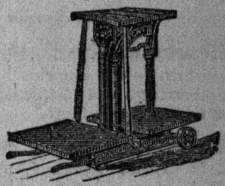
In their manufactures none but the best materials are used, viz.: best Staffordshire Iron and selected brands of Sheffield Cast Steel; *special attention being paid to the important processes of hardening and tempering.*

BUYERS are requested to SPECIFY the "HAND BRAND" in order to secure GENUINE ARTICLES manufactured as described above.

Yates (John) & Co., Pritchet Street, Birmingham; and Exchange Works, Aston Manor, Birmingham.—Kodallie Hoes, Forks, Axes, Dhaws, Spades, and Shovels, for Tea and Coffee Plantations.

(*See also Sections D. and G.*)

Avery (W. & T.), London and Birmingham.—Weighing Machines for Agricultural purposes.



The machine illustrated above is specially adapted for the use of farmers in weighing corn, rice, &c.

Machines are also supplied of any dimensions and capacity for weighing carts and waggons, and can be fitted with either iron or wooden pens for weighing cattle.

(*See also Sections B., C., D. and G.*)

Burgess (W. J. & C. T.), Holborn Viaduct, London; Works: Brentwood, Essex (Agents at the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta). — Rice Machines; Cotton Gins with Cleaner and Condenser; Water Lift for Bullock power; Water Lift for Hand power.

Capell (R. A.), 18 and 19, Bloomfield Street, London Wall, London.—Tea and Coffee Drier.

(*See also Section D.*)

Davidson (John) & Sons, Phœnix Flour Mills, Newcastle-upon-Tyne.—Grain and Seed Separator and Cleaner.

Death & Ellwood, Leicester; and London.—Sugar Mills; Fibre Machinery.

Greig (John) & Co., Regent Works, Norton Place, Edinburgh.—Green Leaf Tea Cutting Machine; Link and Lever Tea Rolling Machine; Circular Hand Motion Tea Sifting Machine; Globulous Pipe Tea Drying Stove; Self-Acting Tea Drying and Withering Machine (The "Cyclone"); Hot-air Generator or Simoon Drying Stove.

Hornsby (Richard) & Sons, Limited, Spittlegate Iron Works, Grantham (Agents for the Exhibition: Balmer, Lawrie and Co., 5, Clive Street, Calcutta). — Indigo Cutting Machine.

(*See also Section G.*)

Howes & Ewell, 16, Mark Lane, London. — "Eureka" Scouring, Separating, and Aspirating Machine for Cleaning Wheat.

Hunt & Tawell, Atlas Works, Earls Colne, Essex (Agents for the Exhibition: Sinclair, Hamilton and Co., 35, Clive Street, Calcutta).—Chaff Cutters; Maize and Oat Mills.

Kinmond (James C.), Sunnycroft, Leamington. — Tea Dryer, adapted for the use of all kinds of Fuel; Tea Dryer, suited for Coke and Charcoal Fuel only; Centrifugal Tea Rolling Machine.

This Collection includes :—

TEA DRYER, adapted for the use of Wood, Reeds, and all kinds of inferior Fuel. This is the only Tea Dryer of sufficient size for large tea factories in which inferior Fuel can be used. It requires no foundation, and dries one maund Pucka Tea per half maund wood Fuel consumed.

TEA DRYER, in which Coke and Charcoal only can be used. It requires no foundation, and dries one maund Pucka Tea per quarter maund Coke consumed. These Dryers are made in THREE SIZES, to dry respectively, ONE MAUND, TWO MAUNDS, and THREE MAUNDS PUCKA TEA per hour.

CENTRIFUGAL TEA ROLLING MACHINE, capable of rolling leaf in five minutes.

AGENTS: MESSRS. WILLIAMSON, MAGOR AND CO., CALCUTTA; GEO. WILLIAMSON AND CO., 1 EAST INDIA AVENUE, LONDON.

Main (A. & J.) & Co., Clydesdale Iron Works, Glasgow; and 108, Queen Victoria Street, London.—Galvanised Iron Tea House; Portable Steel Railways; Galvanised Barb Wire Fencing. Sole Agent for India, Duncan Bros. & Co., Calcutta.

Marshall, Sons & Co., Limited, Britannia Iron Works, Gainsborough. — Tea Machinery; Thrashing Machinery and Corn Grinding Machinery, including:—"Excelsior" and "Universal" Tea Rollers; "Eureka" Tea Sifter and Tea Cutting Machine; Improved Steam Thrashing Machine; Double 3-ft. Corn Grinding Mill.

(*See Descriptive Notice.*)

Nicholson (W. N.) and Son, Newark-on-Trent.—Rice Sheller; Bone Crushing and Grinding Mill.

Planters' Stores & Agency Co., Limited, London; Calcutta; and Assam.—Lyle's Improved Patent Tea Rolling Machine.

This machine rolls the Cutcha or unfired tea leaf in a bag between two cylinder rollers, and the advantages claimed for it are as follows :—

It requires no foundation in fixing;

It gives the largest out-turn with a minimum of labour.

The quality of the tea is improved by this process, whether the leaf be old or young.

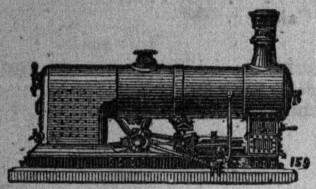
The Exhibitors are the sole Agents for the sale of this machine.

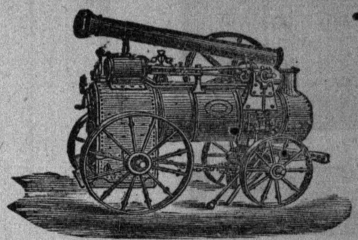
Their address in Calcutta is 30, Strand.

Thomas (J. J.) & Co., 87, Queen Victoria Street, and 285 and 362, Edgware Road, London.—Horticultural Iron and Wire Goods; Flower Stands; Rose Temples; Archways.

(*See Descriptive Notice.*)

Marshall, Sons & Co., Limited, Britannia Iron Works, Gainsborough; and Marshall's Buildings, 79, Farringdon Road, London.—Fixed Steam Engines; Portable Steam Engines; Sawing Machinery, including 12-hp. Fixed Class "C" Engine fitted with Automatic Expansion Gear; 8-hp. Compound Stationary Engine; 6-hp. Fixed Engine and 8-hp. Loco Multitubular Boiler for Tea Gardens; 10-hp. Portable Engine with Automatic Expansion; 4-hp. Portable Engine; 6-hp. Semi-Portable Steam Engine; 6-hp. Vertical Engine without Boiler; 2½-hp. Vertical Engine and Boiler complete; No. 2 Circular Saw Bench; No. 4 Self-Acting Circular Saw Bench.





The requirements of the different countries in which steam power is used are carefully studied by the Exhibitors, who devote special attention to the workmanship and materials employed in their productions. Their manufacturing facilities are amongst the most complete, extensive, and best in the United Kingdom, and their works, upon which about 2,000 hands are employed, cover an area of 16 acres.

HIGH-PRESSURE FIXED ENGINES.—The engines exhibited of this type are of two classes—the 12-Horse Power Nominal being of the long-stroke Class "C" pattern, and fitted with Patent Automatic Expansion Valve Gear, by means of which only sufficient steam is admitted into the cylinder to develope the power required to be given off by the engine, thus ensuring a perfect regularity of speed under great and frequent variations of loads, and reducing the fuel consumption to the lowest possible point. These engines are made from 12 to 35 nominal horse power. A right and left hand engine of this type may be coupled together with the fly-wheel between them, from 24 to 70 nominal horse power.

The 6-Horse Power Nominal Class "A" Fixed Engine is exhibited in connection with an 8-Horse Power Locomotive Multitubular Boiler, fitted with an extra large firebox for burning wood and refuse as fuel, and embodying an efficient feed water heater. In this form the engines are exported in considerable numbers by the Exhibitors to the Indian Tea Gardens. The Class "A" self-contained engines are made from 3 to 10 horse power nominal.

COMPOUND STATIONARY ENGINE.—Hitherto the use of Compound Engines has been practically prohibitive to the ordinary users of steam power, on account of the complication in their construction, and it is only since the recent introduction of more simple engines upon this principle that the advantages accruing from their adoption are available to almost all requiring steam power. The engines of the type exhibited by this firm are easily managed, the engine proper is mounted upon wrought iron girders underneath a locomotive multitubular boiler capable of withstanding a continuous working pressure of 140 lbs. to the square inch. This makes a very compact type of engine, occupying but little space and requiring only slight foundations, and when the boiler is filled with water it tends to maintain the engine rigid in work. The boiler, being of the Loco-Multitubular type, can be fitted with an extra large firebox for burning wood and refuse as fuel, thus rendering the engine suitable for all countries. The Exhibitors manufacture Compound Engines of the Portable and Semi-Portable types from 8 to 20 horse power, and the Stationary Engines, with the works underneath the boiler, from 8 to 40 horse power.

ORDINARY HIGH-PRESSURE PORTABLE AND SEMI-PORTABLE ENGINES.—Messrs. Marshall, Sons and Co. have devoted special attention for many years past to this branch of their productions, and the types exhibited by this firm embody many improvements and advantages resulting from long experience. They have large cylinder area and boiler capacity, and are capable of exerting from 3 to 3½ times their nominal horse power. The 10-Horse Power Portable Engine exhibited is fitted with Patent Automatic Expansion Valve Gear, thus rendering it a very suitable motor for driving Electric Light Dynamos or other machinery requiring the nicest regularity in speed. The 4-Horse Power Engine of this type is equipped with Patent Apparatus for burning straw and vegetable refuse as fuel, and is suitable for driving the improved Thrashing and Finishing Machine described under Section I.

These engines, which are made from 1½ to 35 horse power, are applicable for driving GRINDING AND CRUSHING MILLS, BRICK-MAKING MACHINES, MORTAR MILLS, CENTRIFUGAL AND OTHER PUMPS, SAWING MACHINERY, and in every way suitable for CONTRACTORS, BUILDERS, and others.

The 6-Horse Power Semi-Portable Engine is precisely of the same construction as the Portable Engine, and can be employed for similar purposes. These engines are rendered stationary by the substitution of metal fixings for wheels and under-gear, and require but slight foundations.

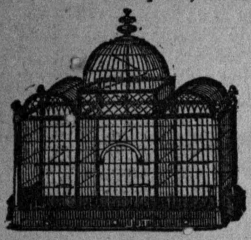
VERTICAL ENGINES, &C.—Messrs. Marshall, Sons and Co. have also sent a large number of these engines, coupled up to Locomotive Multitubular Boilers, to the INDIAN TEA GARDENS, where they are giving great satisfaction, on account of their simplicity, compact arrangement, and easy management. The 6-Horse Power Vertical Engine exhibited is without Boiler, but mounted on a Tank Base, with Force Pump, suitable for coupling up to a Locomotive Multitubular Boiler. The 2½-Horse Power Vertical Engine and Boiler, complete, is of the type and size recommended for working an "Universal" Tea Rolling Machine, as described under Section I. These Engines and Boilers are made from 1½ to 12 nominal horse power.

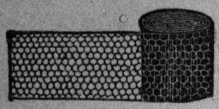
CIRCULAR-SAW BENCHES.—The Saw Benches exhibited by this Firm are designed, after a long and extensive experience, in this branch, and are made of the ordinary and self-acting types. They are specially adapted for export, on account of the small compass in which they can be packed, and, owing to the small number of parts and simplicity of arrangement, can be readily put together at destination.

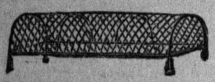
Agents for the Bengal Presidency:—Messrs. BALMER, LAWRIE & Co., Clive Street, Calcutta, from whom Catalogues and any further information may be obtained.

(See also Section I.)

Thomas (J. J.) & Co., 87, Queen Victoria Street, and 285 and 362, Edgware Road, London.—Horticultural Iron and Wire Goods; Flower Stands; Rose Temples; Archways.







The Manufactures of this Firm, as per specimens exhibited in this Section, include:—

AVIARIES, BIRD CAGES;

FLOWER STANDS, GARDEN ARCHES, GARDEN SEATS, ROSE TEMPLES;

FENCING, GATES, CATTLE HURDLES;

WIRE NETTING, WIRE TRELLIS;

SUSPENDING BASKETS;

POULTRY FENCING, HOUSES, and TROUGHS;

WATER BARROWS, GARDEN ENGINES;

PEA GUARDS, AND EVERY DESCRIPTION OF HORTICULTURAL IRON AND WIRE WORK.

In Section D. they comprise:—

SIEVES, WOVE WIRE DISH COVERS, MEAT SAFES;

WOVE WIRE GAUZE in Iron, Copper, and Brass, &c.

The Firm was established in 1840.

At Paris, in 1878, and South Kensington, in 1879 and 1881, Gold Medals were awarded to Messrs. J. J. Thomas and Co., for excellence in Wire Goods for Horticultural purposes.

The Agents of the Firm are Messrs. Sinclair, Hamilton, and Co., 17, St. Helen's Place, London; and 35, Clive Street, Calcutta.

(*See also Section D.*)

Reading Iron Works, Limited, Reading.—Cotton Gin.

(*See also Section G.*)

Richmond & Chandler, Manchester.—Chaff Cutting and Corn Crushing Machines.

Agents: T. E. Thomson & Co., Calcutta.

Robinson (Thomas) & Son, Limited, Rochdale.—Corn Milling Machinery.

(*See also Section G.*)

Ruston, Proctor & Co., Sheaf Iron Works, Lincoln.—Single Corn Grinding Mill.

(*See also Section G.*)

Whitmore & Binyon, 28, Mark Lane, London. Works: Wickham Market, Suffolk (Agents: Walsh, Lovett & Co., Commercial Buildings, Calcutta).—Corn Grinding Machinery.

Witt (George Pawsey), 30, Mark Lane, London.—Rice Cleaning Machinery; Wheat Cleaning and Grinding Machinery; Tea Drying and Sifting Machinery.

(*See also Section G.*)

Ansell (C. W.), Makers, (Messrs. Ransomes Head and Jeffries.)—Ansell's Patent Tea Sorter and Winnower.

Ball (W.) and Son, Rothwell.—4 Iron Ploughs; 2 Jara, 2 Hindoo.

Ransomes, Head and Jeffries, Ipswich.—1 Indian Plough; 1 Light wood and Eagle Plough.

Swindell & Co., Withymore Works, Dudley.—Makers of the real Griffin Hoe; Edge Tools of all kinds.

Thomson (T. E.) & Co., 9, Esplanade Row, Calcutta.—Coalbrook Dale Co.'s Entrance Gates and Fountain. Fountain shewn in play.

Thomson (T. E.) & Co., 9, Esplanade Row, Calcutta.—Howard's Ploughs, Harrows, Ryots Tillage Implements.

Attention is drawn to the new Plough for Indigo cultivation, called "Howard's Seeth Plough," also to the Vine Plough and Vine Cultivator.

Thomson (T. E.) & Co., 9, Esplanade Row, Calcutta.—*A Collective Exhibit*—Agricultural and Horticultural Tools and Implements.

Warner (J.) & Sons Crescent Foundry, Cripplegate, London.—Fountains.

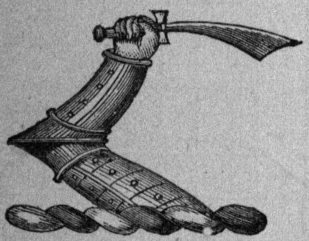
Section K.

ETHNOLOGY, ARCHÆOLOGY, AND NATURAL HISTORY.

(*CLASSES* 144 *to* 149.)

Allcock (S.) & Co., Standard Works, Redditch.—Fishing Rods, Lines, Hooks, &c.

Milward (Henry) & Sons, Washford Mills, Redditch.—Fish Hooks.



TRADE MARK.

Fish Hooks in all the present known shapes and in all sizes are manufactured by the Exhibitors (hooks weighing only the ten-thousandth part of an ounce have been produced by them as perfectly as the largest sizes employed).

Sail needles for fishermen, flies of all descriptions, harpoons, eel spears, and appliances for deep-sea fishing are also included in their manufactures. Grains for sea fishing and every requisite are supplied by them.

The firm has been established more than a century and a half, and has obtained some of the highest awards, including a Gold Medal at the Lyons Exhibition, 1872.

(*See also Section E.*)

Kirby, Beard & Co., 115, Newgate Street, London; and Birmingham.—Fish Hooks.

(*See also Section E.*)

Turner (R.) & Sons, Old Factory, Redditch.—Fish Hooks.

(*See also Section E.*)

Ward (Rowland), F.Z.S., 166, Piccadilly, London.

HEAD OF TIGER WITH PAWS (Tigris Regalis), in Jungle. Mounted in Bamboo Case. Collected by H.R.H. the Duke of Edinburgh, during his recent tour in India.

GROUP OF TIGER CUBS (Tigris Regalis), in Lair. Mounted in Bamboo Case. Collected by H.R.H. the Duke of Edinburgh, during his recent tour in India.

"TRAGOPAN HASTINGSII" (Spotted Pheasant), male and female, designed and mounted by the Exhibitor.

"LOPHOPHONUS IMPEYANUS" (Monal Pheasant), male and female, designed and mounted by the Exhibitor.

Gerrard (Edward), 31 College Place, Camden Town, London.—Natural History Specimens.

NEW SOUTH WALES COURT.

Section A.

FINE ARTS.

(CLASSES 1 to 6.)

Simonetti (Achille), Colonial Architect's Department, Sydney.—Busts in Terra-cotta.

Collingridge (Arthur), Ryde, near Sydney.—Engravings on wood.

Gibbs Shallard & Co., Sydney.—Panoramic View of Sydney and Port Jackson.

Bennett (W. F.), 252, George-street, Sydney.—Photographs.

Boake (B. C.), Sydney Arcade, Sydney.—Photographs.

Caney & Co., Mount Victoria, Blue Mountains.—28 Silver Photos. of Interior of Fish River Caves and Blue Mountain Views.

Caspers (Rudolph), Auburn-street, Goulburn.—Photographs.

Colonial Architect Hyde Park, Sydney.—Photographs of Public Buildings.

Photos of International Exhibition Building, Sydney, 1879.

Photolithographs of the garden palace, &c.

Photolithographs of the Macquaric Light-house South Hend.

Commissioners for New South Wales.—Panoramic View of Sydney.

Commissioners for New South Wales.—Photographs of Public Works; Public Works Department. Views, principally on New Wales Railway.

Geyer (H.), Photographer, Hay.—7 Photographs.

Government Printer, Bent-street, Sydney.—74 Photographs.

Government Printer, Bent-street, Sydney.—27 Photographic Views in Botanic Gardens Sydney.

Herfort (Gustavus), Cooma-street, Yass.—Photographs.

Holterman (B. O.), St. Leonards, Sydney.—Photographs; Photographic panoramic views of the City of Sydney and Port Jackson Harbour.

Minister for Public Works, Sydney.—42 Photographs.

Paine (J.), 96, Elizabeth-street, Waterloo.—15 Photographs of Sydney and Mountain Scenery.

Rusfeldt E. & Co., Royal Arcade George-street, Sydney.—Photographs.

Trebeck (P. N.), Hunter-street, Sydney.—Photograph of the new Wool Stores built for the firm of P. N. Trebeck & Son, Sydney.

Turner & Henderson, 16 and 18, Hunter-street, Sydney.—Album of Landscape Photographs.

Tuttle & Co., Sydney.—Photographs.

Wood (Granville A.), 314, George-street, Sydney.—Photographic Views and Photographs.

Deputy Master of the Royal Mint Sydney.—Coins, Medals, &c., struck at the Sydney Mint.

Drewe, (Amelia), 1, Oak-terrace Glebe, Sydney.—Musical Compositions,—"Kaikoura Waltzes," and "City of Gafton Schottische."

Turner & Henderson, 16 and 18, Hunter-street, Sydney.—Christmas Cards, Australian Flowers, &c.

Section B.

EDUCATION AND APPLICATION OF LIBERAL ARTS.

(*CLASSES 7 to 15.*)

Commissioner for Railways for New South Wales, Sydney.—Annual Railway Reports, 1877 to 1881. 1 vol.

Liversidge, (A.), F.R.S., Professor of Chemistry and Mineralogy in the University of Sydney. Books and Models.

Minister for Mines, Sydney.—Books and Reports relating to the Mineralogy of New South Wales.

Minister for Public Instruction, Sydney.—Plans of Public Schools.

Adams (P. F.), Surveyor-General New South Wales.—24 Maps—Specimens of Lithography, Engraving, etc,

Mackenzie (John), F. G. S., Government Examiner of Coalfields, Newcastle.—Plans and Diagrams.

Minister for Mines, Sydney.—Maps.

Postmaster-General, Sydney.—Map showing the Post and Telegraph Offices of the Colony of New South Wales.

Turner & Henderson, 16 and 18, Hunter-street, Sydney.—Heraldic and Ornamental and Business Embossing.

Batson & Atwater, 8, Bond-street Sydney.—Specimens of Letter-press Printing.

Government Printer, Bent Street, Sydney.—Specimens of Letterpress Printing,

Greville (Edward), 273, George-street, Sydney.—Official Directory and Almanac of Australia.

Section C.

HEALTH.

(*CLASSES 16 to 22.*)

Lavers (J. V.), 117, Redfern-Street, Sydney.—Disinfecting Fluid; Chlorozone for Disinfecting and Deodorising.

Hogben (E.), Buckingham-street, Redfern, Sydney.—Balsam of Aniseed for Coughs.

Hogg (S.P.), & Co., 12, Wynyard-lane, Sydney.—Fruit Salt

Lavers (J. V.), 117, Redfern-street, Redfirn Sydney.—Cholera Mixture Cream of Tartar; Fruit Salt.

Section D.

FURNITURE AND OTHER OBJECTS FOR THE USE OR DECORATION OF DWELLING HOUSES AND OTHER BUILDINGS.

(CLASSES 23 to 37.)

Hodgson (H. W.), City Window Blind Factory, Elizabeth-street, Sydney.—1 Polished Queensland Pine Blind; 1 Enamelled Green Pine Blind; 1 French and Grey Stone Color Patent Self-acting Venetian Blind (painted by machinery) fitted with silk tapes.

Holloway (William Ernest), King-street, Newtown.—Specimen of Sign-writing and Gilding on Glass.

Australian Glass Works Co., Botany, near Sydney.—Ærated Water Bottles, etc.

Barrett & Co., Buckingham-street, Redfern, Sydney.—Patent-stopper Bottles.

Cannon (Manes) Leichhardt-st., Waverley, Sydney.—Double jar for safe carriage of perishable articles, such as butter, made according to Exhibitor's specification. [The Exhibitor shews sample of butter in jar of description referred to.]

Cochrane (George), Moubray Park, Street, Leonards, Sydney.—Fireclay; Earthenware Clay; Terra ccotta Clay.

Hardie (George), 131, Pitt-street, Sydney.—Bell, manufactured from Cobar copper. Copper castings from Cobar copper.

Bailey & Kerr, 111, King-street, Sydney.—Improved Safety Lamp.

Cook (W. & H.), 225, Elizabeth-street, Sydney.—Samples of patent "Paragon" Fire-kindlers.

Williams (Charles), 264, Crown-street, Sydney.—Marbling; Graining, etc.

Russell (J. E. M.), 111, Stanley street, Woolloomooloo, Sydney.—Lettered Placard in colors to go over maps.

Hellyer (R.), 97, Bathurst-street, Sydney.—Colonial manufactured Plated Ware.

Jones (Evan), Hunter-street, and Royal Arcade, Sydney.—Electro-plated Ware, including Emu Eggs mounted in electo-plate.

Russell (J. E. M.), 111, Stanley-street, Woolloomooloo, Sydney.—Bullion Bank.

This little invention is intended for the reception of letters by the Post; and after their deposit in the box, it is claimed that to extract them again by the same aperture by which they were introduced is an impossibility.

Zollner (S.), 60, York-street, Sydney (Agent in Calcutta, Mr. S. J. Levy.)—Galvanized Ironware.—Tubs and buckets; Japanned and painted ware; Household Bellows, various; Blacksmiths ditto.

Section F.

FABRICS, INCLUDING APPAREL, TOILET REQUISITES, AND OTHER OBJECTS OF PERSONAL WEAR OR USE.

(CLASSES 38 to 52.)

Commissioners for New South Wales.—New South Wales Merino Wool, shewn in the various stages of manufacture. Prepared especially for the Commissioners by J. Vicars & Co., Woollen Manufacturers, Sussex-street, Sydney *viz.* :—

Greasy Wool (as received from the Squatter).
Scoured Wool.
Native Brown (from black Merino Sheep).
Dyed Wools, in various colours.
Carded do. do.
Spun Yarns do.
Twisted do. do.

Tweeds, various fancy patterns; including Buckskins; Checks. twills; Hair-cords; Indigoes; cricketing and Native grown Tweeds (without dye); and Scarlet Cloth.

Plaids and Shawls.

Jones (Evan.,) Royal Arcade and Hunter Street, Sydney. Jewellery; Electroplated Ware; Emu Eggs Mounted, &c.

Section E

RAW PRODUCTS, AND MANUFACTURES FROM PRODUCTS NOT INCLUDED IN OTHER SECTIONS.

(CLASSES 53 to 81.)

Atkinson (J. J. O.), Oldbury, Mossvale.—Iron Ore. from Oldbury Estate, near Berrima.

Australian Agricultural Company, Newcastle.—Bituminous Coal from their Colliery near Newcastle.

The coal seam is from 13 feet 7 inches to 7 feet 10 inches in thickness, is free from faults, lies very regular, and has an average dip of 1 in 20 to 1 in 30 to the South-east.

Australian Kerosine Oil and Mineral Company (Limited) Joadja Creek, near Cerrimas Office: 3, Gresham Street, Sydney. —Boghead Mineral, in blocks.

The extent of the mine worked by the Company is 2,000 acres; output last year, 30,000 tons; number of hands employed in the mine and at the works, makin; kerosine; paraffin; wax; gasolineg &c., 200; seam, about 1 ft. 6 in. thick; yield, about 18,000 cubic-feet of gas or 160 gallons crude oil per ton.

Bensusan (S. L.), O'Connell Street, Sydney.—Australian Mineral Specimens, Collected, and arranged numerically,

Bulli Coal Company, Culli, near Wollongong. — Semi-bituminous Coal from their Colliery at Bulli. The coal seam is about 8 feet in thickness, of clean coal, without any bands; has an excellent rock roof and floor, and dips about 1 in 30 to the north-west.

Carangula Antimony Company, Carangula, Macleay River. —Antimony Ore.

Challenger Gold-Mining Company, Adelong.—Specimens of auriferous pyritous Quartz.

These exhibits were obtained from the crown of the Company's old reef. No. 1 block is from the 200 feet level, No. 2 from the 400 feet level, and No. 3 in two pieces from the 600 feet level. The reef in all these levels averages 10 inches in thickness, and will yield in gold an average of 1oz. 10dwts. per ton; the gold is alloyed with about 8 ozs. of native silver per 100 ozs. of retorted gold; the stone yields about 2 per cent. of pyrites saved by a 24 feet diameter round concave buddle, provided with Monday's patent scrapers. The pyrites when treated yield about 3 ozs. per ton.

Coal Cliff Company, Coalcliff.—Semi-bituminous coal from their Colliery at Coal Cliff—34 miles south of Sydney. Seam, 5 feet 10 inches in thickness.

Commissioners for New South Wales, Sydney.—Refined Tin, in ingots and bar.

Commissioners for New South Wales, Sydney.—Auriferous Quartz—Great Victoria Mine, Adelong. Blocks marked A from the 970 feet level; blocks marked B from the 1,000 feet level. Average yield 2½ ozs. of gold per ton.

Fountain (J.), & Allison (W.), Woodlands, Gosford.—Iron ore; Paint ochres; Soil; Fireclay.

The iron ore exhibited is found about 40 miles from Sydney by water, and 51 by rail. The soil is believed to be decomposed iron, as when roasted the magnet will lift 75 per cent. of it; this makes good paint.

Glen Smelting Company, Tent Hill.—Lode, stream, and smelted tin.

Great Cobar Copper-Mining Company. Office, 131, Pitt-street, Sydney.—About 5 tons Copper ingots, forming trophy. [There is now a very large demand not only in Great Britain but in India for this copper in the form of ingots.—ED.]

Great Cobar Copper-Mining Company. Office, 131, Pitt-street, Sydney.—Assortment of Copper ores; Regulus; Pimple metal; Coarse and fine copper, illustrative of the several stages of smelting.

Herrenschmidt, (H.), 2, Hereford-street, Glebe Point.— Antimony ore; Antimony Regulus; Crude Antimony; Antimony Oxides. Cobalt and Manganese Ores and other Products.

Hume (A. H.), Everton, Rye Park, near Yass.—Argentiferous and auriferous Galena. Lode, 3 ft. wide; depth, 60 ft.

Melville (John S.), Sydney.—Star Antimony.

Minister for Mines, Sydney.—Collection of Minerals from New South Wales.

The following information is extracted from the Annual Report of the Department of Mines:—

GOLD.

The weightof gold obtained to the end of 1882 was 9,365, 648·51 oun-

ces, of the value of £34,870,378 4*s.* 2*d.* Except in some few localities quartz-veins have not been worked to a great depth. Alluvial lands have in some instances been worked to a depth of 200 feet, and there are the strongest indications of deep leads in various parts where no attempt has been made to work them. Gold-mining, as hitherto carried on, has been principally confined to the working of river-beds and shallow alluvial claims. Extensive areas of country are known to be auriferous, and it is believed that there will be ample scope for the remunerative employment of a large population in both alluvial and quartz-mining. The poor success which has often attended the working of quartz-veins is largely attributable to ill-judged speculation, inexperience, and the absence of proper ore-separating and other mining appliances. The Government Geological Surveyors, in their reports to the Minister for Mines, indicate promising localities for the gold prospector in the Northern, Western, and Southern Districts of the Colony. Specimens of auriferous quarts from various gold-fields are shown in the Exhibition.

The approximate area included within the proclaimed Gold-fields is 35,500 square miles; but from the geological formation of the country it is believed that the area in which payable gold deposits will be found will be greater than that now stated. From some of the reefs at Hill End crushings gave at the rate of from 30 to 2,100 ounces of gold per ton. It is known that much gold passes away in the tailings, and is lost in consequence of the imperfect appliances at present employed for the treatment of auriferous pyrites.

Silver and Lead Ores.

Valuable lodes have been found in various parts of the Colony, but none of them have been extensively worked, with the exception of those at Boorook, the discovery of which is of comparatively recent date. The neglect of these important deposits is mainly due to want of knowledge of the proper modes of treating the several descriptions of ores. The quantity of silver raised to the end of 1882—chiefly from the Boorook Mines—is 765,397 ounces, valued at £137,429.

The lodes of galena which have been opened have not as yet been worked with profit.

Copper.

Several lodes of copper are being worked in the Colony, but some of the richest are at present beyond the reach of railway communication. Those which have been hitherto worked vary in thickness from 1 to 100 feet, and consist of ores which contain as high as 70 per cent. of metal. The copper is not unfrequently associated with gold, silver, and lead. The production of copper has increased in value from £1,400 in 1858, to £324,727 in 1882. The value of the total production of copper to the end of 1882 was £3,538,285. Numerous characteristic specimens and some large blocks of copper ore, also about 5 tons of metallic copper in ingots, are exhibited. The approximate area of cupriferous country in New South Wales is 6,713 square miles.

Antimony.

Antimony ores have been found in numerous parts of the Colony. The principal lodes occur in the Macleay, Armidale, Clarence, and Mudgegong Districts. Those on the Munga Creek, near the Macleay River, traverse sedimentary rocks of Devonian age. The ores consist of oxide and sulphide, and occur in irregular bunches, occasionally of a considerable size, associated with quartz matrix, which forms the chief constituent of the lodes.

One of the lodes near Armidale contains free gold plainly visible to the naked eye.

Until quite recently but little attention has been devoted to the development of the antimony lodes but lately some of the lodes have

been worked, especially in the Macleay and Armidale districts; and there is reason to believe that the output of this mineral will largely increase.

The quantity and value of antimony exported to the end of 1881 is 2,171 tons 18 cwts., value £74,519.

Bismuth.

Dismuth ores have been found in the tin-bearing drifts, and also in lodes at Silent Grove. The Gulf (in the Vegetable Creek District), Glen Innes, Elsmore, Tenterfield, and Adelong. At Kingsgate, near Glen Innes, a lode is reported to be 6 to 8 feet wide, from which samples of metallic bismuth have been taken, weighing from 1 to 5 pounds. Samples of the ores from this locality are shown in the collection.

Tin.

The approximate area of the Tin-fields in New South Wales is 5,440,000 acres. According to the official report of Harrie Wood, Esq., Under-Secretary for Mines, the value of the total production of the tin to the end of 1882 amounts to £5,173,038. The tin ore therefore ranks next in importance to gold and coal as a source of wealth to the Colony. The existence of tin in New South Wales was known for many years, but it was not till 1871 that any attempt was made to turn this mineral to account as a marketable commodity. The most extensive deposits of ore have been found in the northern portion of the Colony, but tin has also been discovered in other districts. The value of the tin obtained in 1872 was £47,703, in 1873 the value amounted to £334,436, and in 1882 to £833,461; the total value of the production to that date being £5,173,038. The ore has hitherto been obtained in the beds of watercourses, and it is separated from the soil by sluicing. In some localities extremely rich deposits of drift tin have been found in the beds of ancient streams, at a depth from 60 to 80 feet below the surface; but it more frequently happens that the overlying soil is only a few feet in thickness. Valuable lodes or reefs have also been discovered, and in some places crushing machinery has been erected to extract the ore. The tin-breaking granites of New South Wales belong to the same geological era as those of Cornwall. Many years will elapse before the ground now being worked will be exhausted, so that the tin-fields open a wide scope for the employment of the labouring classes. Recent discoveries of comparatively deep deposits of stream tin prove how little our tin-bearing lands have been explored, and how richly they compensate the explorers. The tin ores exhibited in the New South Wales Court are numerous, and show the different forms in which this mineral has been found in the Colony.

Iron and Manganese.

Important deposits of iron ore are found in close proximity to coal and lime-stone in several parts of the Colony, Furnaces, rolling-mills, &c., have recently been erected at Eskbank, Lithgow Valley, for the conversion of pig iron into malleable iron; and it is expected that the demand for iron in the Colony will be supplied by metal locally produced. Hæmatite, magnetic, chrome, and other iron ores are shown in the mineral collection. The ore found at Mittagong, in the Southern District, contains about 66 per cent. of iron. Speaking of the deposits of iron ore at Wallerawang, Professor Liversidge says—"They contain two varieties of iron—magnetite, or the magnetic oxide of iron, and the brown hæmatite or goethite—the hydrated oxide; then in addition to these there are the deposits of the so-called clay bands which are interstratified with the coal measures. These clay bands are not what are usually known as clay iron ores in England. They are brown hæmatites, var. limonite, while the English clay iron ores are impure carbonates of iron, which seldom con-

tain much more than 30 per cent. of metallic iron, against some 50 per cent. contained by the hæmatites. A highly ferruginous garnet rock accompanies the veins of magnetite; this garnet rock is very rich in iron, and it will probably be found advantageous to smelt it with the other ores, not only on account of the large percentage of metal which it contains, but also on account of the increased fluidity it would impart to the slag." The approximate area of iron ore deposits is 1,400 square miles. The value of the iron raised to end of December, 1882, amounts to £154, 581 0*s.* 4*d.*

Manganese ores have been found in considerable quantities, but owing to cost of carriage to seaboard cannot at present be profitably worked.

VARIOUS SPECIMENS, INCLUDING ZINC, ASBESTOS, GEM-STONES, &C.

Zinc-blende is of frequent occurrence in the auriferous and other veins, but has hitherto not been found in sufficient quantity to pay.

Asbestos of good quality, in veins in serpentine is found in the Gundagai and Bathurst Districts, but the veins have not been much explored.

The Gem-stones found in the Colony include the diamond, sapphire, Oriental emerald, emerald, ruby, opal, amethyst, garnet, chrysolite, topaz, cairngorm, onyx, &c., which have been found in the gold and tin-bearing drifts and river gravels in numerous localities.

COAL.

The approximate area of the carboniferous strata is estimated at 23,950 square miles. The principal coal-beds exist along the coast to the north and south of Sydney. The mines first opened are situated in the immediate vicinity of Newcastle and it is from there that the Colony obtains its largest supply. In many districts the coal crops out on the face of the hills, and can be cheaply got by driving tunnels. The coal-shipping facilities at Newcastle are by staiths and steam and hydraulic cranes. Full descriptions of the various coal-seams worked in New South Wales have been given by Mr. John Mackenzie, G. F. S., Government Examiner of Coal-fields, in the Annual Report of the Department of Mines. Writing of the upper coal measures in the Western District, the Government Geologist (Mr. C. S. Wilkinson, L. S. F. G. S.) says: "They are 480 feet thick, resting conformably on the marine beds of the lower coal measures, and overlaid by more than 500 feet of Hawkesbury sandstone. Eleven seams of coal have been counted in them; the lowest, which is 10 feet thick, lies about 25 feet above the marine beds, and is the same seam worked by the Bowenfels, Eskbank, Lithgow Valley, and Vale of Clwydd Collieries. This seam of coal crops out on the surface on the railway line near Bowenfels. It dips at a low angle of 3 to 5 degrees to the north-east, and is therefore easily worked; and as it passes under the vast extent of mountain ranges to the north and east it will be inexhaustible for generations to come." The production of coal has increased very rapidly of late years. In 1833, 328 tons were raised, and in 1882, 2,109,282 tons. Several seams of petroleum coal have been found, and the coal from two of them is retorted for the manufacture of "kerosene oil." Their thickness varies from 2 to 5 feet. The Hartley shale yields 160 gallons of crude oil, or 18,000 cubic feet of gas per ton, with an illuminating power equal to forty candles. The total production of coal to December 31st, 1882, was 25,990,761 tons, of the value of £13,204,272 13*s.* 8*d.*, and of petroleum coal 928,349 tons, of the value of £665,160 15*s.* 8*d.* Sections and samples of the coal seams worked in the Northern, Western, and Southern Coal-fields are exhibited

Minister For Mines, Sydney.—Collection of characteristic Fossils from the principal Sedimentary Formations of New South Wales.

New South Wales Shale and Oil Co., 3, Hunter-street, Sydney.—Boghead Mineral (or Kerosene) Shale, from their mine at Mount York, Hartley. Seam, 3ft. 2in. thick, yield 18,000 cubic feet of gas, or 160 gallons of crude oil per ton.

North (J. B.), 105, Pitt-street, Sydney.—Coal from Katoomba Colliery Seam, 4ft. 3in. in thickness.—Also Kerosene Shale from Katoomba.

Railway Department of New South Wales, Locomotive Branch, Government Railway works Sydney—(Extracted from Minerals by Mr. Conrad Icke, late of Newcastle, N. S. W.)

Chrome Ironstone.
Chrome Yellow.
Chromate from New South Wales
Antimony Ore (Kempsey district).
Ingot of Star Antimony.
Antimony Ore from Armidale.
Ingot of Star Antimony.
Nickel Ore from New Caledonia.
Piece of pure Nickel, handle of German silver.

Wallerawang Iron Co. (Limited),—Iron Ore; Limestone.

Bray (James S.), 84, Forbes-Street, Woolloomooloo, Sydney.—Australian Woods.

1. Ironbark Wood.
2. Black Wattle or lignum vitæ Wood.
3. Native Cherry Wood.
4. Myall Wood.
5. Apple-tree Wood.
6. Pine Wood.
7. Mimosa Wood, known also as Wattle.
8. Red Gum Wood.
9. Stringy bark.
10. Kurrajong Wood.
11. White Box Wood.
12. Yellow Box Wood.

Commissioners for New South Wales.—Collection of Timbers, procured for the Commission by the Forest Rangers under the Department of Mines of New South Wales.

Commissioners for New South Wales.—List of Specimens of Leaves, with numbers and alphabetical letters corresponding with those of Timber Sections.

Commissioners for New South Wales.—List of Specimens of Seeds of New South Wales Timbers procured for the Commission by the Forest Rangers under the Department of Mines; with numbers and alphabetical letters corresponding with those of the specimens of Timbers and Leaves.

Commissioners for New South Wales.—Specimen Planks of Timber, and Turnery.

Commissioners for New South Wales.—Collection of Timbers (transferred from Amsterdam).

E. W. G. Co. (A. Geddes) 2, Young Street, Circular Quay, Sydney.—Potash Wood-Scouring Soap, Glue and fancy Leather.

Regan (Daniel), Tamworth.—Household Soap.

Smallwood (D. J), Caddia Road, Pitt Town, Hawkesbury River—Wax.

Smith (A. L.), Sussex Street, Sydney, Soap.

Samuel (L. & E.), 3, Spring Street, Sydney.—Glue.

Begg & Son, Glenmore Road, Rushcutter's Bay, near Sydney—Sole Leather, 10 sides.

Crawford (A. R.,) Moona Plains, Walcha—Plaited breaking-in Halter Two Hobbles for camping-out made of green hide.

Forsyth (James) & Sons, 17, George Street West, Sydney.—Sole Leather.

Twelve sides best sole leather; middle sole leather, six sides; export sole leather, six sides. Best stout sole, 20*d.* per lb; middle 13*d.* per lb; export 12*d.* per lb.

Guerin (Patrick), 296, Elizabeth street, Sydney.—Saddles; Harness; (single and double); collars; Bridles; Breastplates; Martingales, Coat Straps; Saddle Pouch.

Hodgson (Edmund), 601, George Street Sydney.—Kangaroo-skin Whip-thongs.

Knibbs (J. H.) & Sons 9 Municipal Stores, Market Wharf Sydney. —Leather Mill-belting.

Three samples of Double, Cemented, and Thong-sewn Belting. 10-in., 8-in., and 6-in.,

Three samples of Double Cemented and Rivetted Belting, 12-in., 8-in., and 6-in.,

Three samples of Patent Raw and White Hide Belting.

One sample of 2½in. Leather Hose Piping.

Lancashire (J. B.) Senr., 59, Hunter-street, Sydney.—Solid Leather Turnover Portmanteau.

Rourke (John), High-street, West Maitland.—Stock Saddle.

Boman (Jane A.), Arrowfield, Jerry's Plains.—Silk. One case of Silk, production of Silkworms reared at Jerry's Plains.

Allen (John), Stony Creek, Young.—Grown at Stony Creek. Merino rams' combing; greasy; pure bred; station flock from sheep originally imported from Tasmania, and one ram imported from Tasmania. Growth of 354 days; most of the time a very dry season.

Merino combing ewes; greasy; pure bred; progeny of sheep originally imported from Tasmania; growth of wool, 354 days, most of the time a very dry season, and the ewes rearing lambs.

Balfour (James), Round Hill, near Albury.—Grown at Round Hill. Merino rams' wool.

Merino hoggets' wool.

Bettington (J. B.), Lindley Park, Collaroy, Merriwa.—Grown at Lindley Park. One bale Merino, greasy (1st sample). One bale Merino, greasy (2nd sample).

Merino, greasy (1st sample).

Merino, greasy (2nd sample).

Buchanan (W. F.), Killarney, Narrabri.—Grown at Killarney. Merino rams'; greasy.

Merino ewes'; greasy.

Campbell (D. H.), Cunningham Plains, Cunningham.—Grown at Cunningham Plains. Merino ewe, greasy.

Clark Bros., Gullendaddy, Boggabri.—Grown at Gullendaddy, Liverpool Plains. Lincoln, greasy; picklock.

Merino, greasy; one commercial bale.

Lincoln, greasy; one commercial bale.

Merino, greasy; picklock.

Collingwood Wool-Scouring and Fellmongering Works, Liverpool.—Scoured slipe wool; no chemicals used; on particulars as to age, growth, or sex to be obtained. Branded CWD in parallelogram over Collingwood.

Cox (G. H.), Mudgee.—Grown at Mudgee. Merino rams' wool.

Merino ewes' wool.

Merino rams' wool.

D'Archy (F. E.), Oxley.—Grown at Oxley. Ewe hoggets; growth of 11 months; scoured; super combing.

Douglas (H. & C.), North Yanco, by Narandera.—Grown at North Yanco. Australian Merino ewes'; age 2 years; greasy.

Douglas (H. & C.), North Yanco, by Narandera.—Grown at Walla Walla, Albury. Merino, greasy rams' wool.

Douglas (H. & C.), Walla Walla, Albury.—Grown at Walla Walla. Merino hoggets' wool.

Dowling (Vincent), Lue, Rylstone.—Grown at Lue, Mudgee District. Greasy ewes' wool, 11 months' growth. The Lue stud flock was formed in 1823 from imported pure Merino sheep direct descendants of King George III's Spanish Merino flock. Other sheep were obtained from Mr. Riley of Raby, who had imported sheep from the Elector of Saxony's pure Merino flock. In the year 1835 a few sheep were introduced from the flocks of Messrs. Gadegast and Steiger, of Saxony.

Dowling (Vincent), Lue, Rylstone.—Grown at Lue, Mudgee District. Greasy rams' wool, 12 months' growth.

Fetherstonhaugh (C.), Goorianana, Baradine.—Grown at Goorianana, Liverpool Plains. Hogget rams, not shorn as lambs; 15 months' growth. These sheep are of Mudgee and Collaroy blood.

Grant & Childe, Chah Sing, Moulamein.—Grown at Chah Sing, Riverina District. Four skirted fleeces greasy wool.

Gray and Neill, Sandy Ridges, Corowa.—Grown at Sandy Ridges. Merino ewes, greasy; fed on indigenous grass paddock only.

Merino hoggets shorn, as lambs; indigenous grass paddock only.

Merino ewes, greasy; commercial bale; grass-fed only.

Haigh (Henry) & Son, Moorbank, Liverpool.—Scoured wool.

Hammond (Thomas W.) & Co., Junee.—Grown at Junee Station. Merino, fine combing, greasy, full-mouthed ewes; sheep bred from station ewes, being from Mudgee and Tasmanian stock originally; paddock-fed.

Hammond (Thomas W.) & Co., Junee.—Grown at Junee Station. Merino fine combing, two-tooth ewes, shorn as lambs; sheep bred from Tasmanian and Mudgee stock, sires being Tasmanian bred and ewes station bred; paddock-fed.

Harden (Arthur L.), Manilla, Tamworth.—Grown at Manilla Station. Merino, greasy fleece wool; sheep bred from Mudgee and Colley Creek rams.

Merino, washed fleece wool; sheep bred from Mudgee and Colley Creek rams.

Hay (William) & Sons, Boomanoomana, Mulwala, Murray District.—Merino; paddocked.

Hill (W. C.), Butterbone, Macquarie River.—Grown at Butterbone. Merino heavy combing; Collaroy special stud flock.

Lackey, Wallace & Mills, Nubba, Wallendbeen.—Grown at Nubba. Merino rams'; scoured.

Merino rams' wool; washed.

Merino ewes' washed.

Merinoewes'; greasy.

One single ewe fleece.

Lord (Hon. Francis), Burrawong Molong.—Grown at Burrawong.

Merino rams', greasy.

Merino ewes', greasy.

Merino ewe hogget; greasy.

Loughnan (McCallum) & Co., Nelyambo, Wilcannia.—Grown at Nelyambo. Merino greasy produce of ordinary station flock Merino scoured; wool from ordinary station flock.

Macdonald (John M. L.), Wallabadah.—Grown at Wallabadah. Merino ewes skirted fleece; greasy; pure bred; Wallabadah stud flock.

Mauchee (John Charles), Glen Moan, Murrurundi.—Grown at Phillip's Creek, Liverpool Plains. Merino ewe hoggets; greasy long combing; bred from Collaroy rams.

M'Caughey (Samuel), Coonong Urana.—Grown and bred at Coonong. Merino combing ; greasy.

Mitchell (James), Table Top, Yambla near Albury.—Grown at Table Top. Merino wool.

Merino combing ; pure bred ; station bred ; progeny of Ercildoun rams.

Morton (C. J.), Jindera, near Albury.—Grown at Jindera. Lincoln hoggets' wool.

Mulholland (George James), Oura, Wagga Wagga.—Grown at Oura. Commercial bale ; general flock.
Combing greasy ; stud flock.

Ormond & Brook Bros., Tapio, Wentworth.—Grown at Tapio. Unskirted fleeces.

Sloane, (Alexander), Mulwala.—Grown at Mulwala Station. Merino rams and ewes ; depastured in paddocks.

Suttor (F. B.), Bradwardine, Bathurst.—Grown at Bradwardine. Merino ewes ; greasy.
Merino, scoured.

Traill Brothers, Llangollen, Cassilis.—Grown at Llangollen. Merino combing ; maiden ewes. Depastured on mountainous country ; fed on natural grasses only.
Merino combing ; ewe hogget ; depastured on mountainous country ; fed on natural grasses only.

Merino combing ; hogget ram ; depastured on mountainous country ; fed on natural grasses only.

Watson, (Samuel), Gerogery near Albury.—Grown at Gerogery Merino rams.

Watson, (Samuel), Gerogery, near Albury.—Grown at Gerogery. Merino hoggets' wool. Natural pastures.

White (J. F. & H.), Beltrees, Scone.—Grown at Beltrees. Merino, greasy.

White, (F. R.), Harben Vale, Blandford.—Grown at Harben Vale. Australian Merino rams, in the grease ; puree bred by exhibitor, from his own stock. Australian Merino ewes, in the grease.

White (H C.), Havilah, Mudgee.—Grown at Havilah. Pure Merino wool in grease ; bred from pure Spanish blood. Pure Merino ewes ; paddock-fed. Grown by exhibitor from his Havilah flock (formerly N. P. Bayley's). Pure Australian Merino ewe hoggets, 13 months growth of wool, 400 days paddock-fed.

Whitty (Henry Tarlton), Tarramia, Corowa.—Grown at Tarramia, Riverina, Corowa. Merino combing ; greasy ; first quality. Merino, combing ; scoured.

Craven (T. W.), 164, Sussex Street, Sydeny.—Brooms and Whisks. Millet Brooms manufactured on the Hunter River, four qualities. Hand Whisks made from Millet grown on the Hunter River.

Jewell (Edward), Botany near Sydney.—Colonial-made Ropes ; Twines ; &c.

Plough Reins. Halters (in variety). Halliards. Windowblind Cord. Whip Cord. Common Clothes Lines. Cablelaid, No. 1 and No. 2. Traces. Tiller Ropes. Sash Cords. Twine.

Lusignan (G. A. de), Sydney.—Aloe Fibre.

This exhibit was grown in the Mauritius, but cleaned by machinery made in Sydney patented by G. A. de Lusignan.

Penal Department of New South Wales. Rugs, Mats and Matting manufactured by Prisoners in H. M. Gaol, Darlinghurst, Sydney N. S. W.

Cochrane (George), Moubray Park, St. Leonards —Bricks, Tiles.

O'Neil Charles, M. I. C. E., 225, Elizabeth Street, Sydney.—Patent Artificial Caithness Flagging; Group Flagging or Artificial Stone ; Patent Artificial Kerbing and Channelling.

Crawfords (A. R.), Moona Plains, Walcha.—Gums and Resins from the Blood-wood, Apple-tree, White Gum, and Grass-tree.

Knibbs (J. H.), and Sons, Market Wharf, Sydney.—Gum Accroides.

Somerville (William), 227, Sussex Street, Sydney.—Gum Accroides, being a Resin from *Xanthorrh œahastilis.*

Crump (W.), Off 614, George Street, Sydney.—French Polish Reviver ; Piano and Furniture Renovator.

E. W. G. (A. Geddes), Co. 2, Young Street, Circular Quay, Sydney —Ink for Branding, Marking, or Printing.

Hill (George), 796, George Street Sydney (Factory : Trafalgar Sreet Annandale, near Sydney.)—Colonial Manufactured Blacking, in tins.

Bridle (Wm.), Rosevale, Tumut. —Oronoco Tobacco Leaf, grown at Tumut.

Cohen and Levy, Tamworth.—Tobacco Leaf.

Hutchison (James,) Singleton. —Tobacco Leaf.

Story and Crago, John Street, Singleton.—Tobacco Leaf.

Sutton (A. W.), 284, George Street, Sydney.—Tobacco : seven varieties of Tobacco Leaf grown in New South Wales.

Young (O. K.), High Street, West, Maitland.—Tobacco Leaf.

Hogg (S. P.) and Co. 12, Wynyard, Lane, Sydney.—Baking Powder.

Selfe (Gilbert), Manufacturing Chemist, Oxford Street, Sydney.—Chemicals ; also including Specimens of Native Ores &c., from which they were manufactured by the Exhibitor.

Lavars (J. V.), 117, Redfern Street, Redfern, Sydney.—Printer's Friend, for cleaning Type.

Section G.

MACHINERY AND IMPLEMENTS, MEANS OF TRANSPORT, APPLIANCES, AND PROCESSES USED IN THE COMMON ARTS AND INDUSTRIES, INCLUDING MODELS AND DESIGNS.

(CLASSES 82 to 109.)

Hudson Brothers, Limited, Sydney and Granville.—Patent Frictionless Bearing Spring.

Paton (John), 24, Pitt Street Redfern, Sydney.—Tram Rail.

Railway Department of New South Wales, Locomotive Branch, Government Railway Works, Sydney—Exhibits prepared by Conrad Icke, of the Locomotive branch, late of Newcastle, N.S.W.

Icke's Phosphor-Bronze.

P. B. 1.

Bearing for any kind of machinery of any weight, power, or speed, without danger of heating (proved to be five times more durable than gun-metal); steam-slides; valves; excenterings; tooth or cog-wheels; brakes of any description; &c.

P. B. 2.

Suitable for any part of machinery, as shaft-rings, cylinders for bearings, drill machines, ; plates, wires, ornamental castings, &c. Possesses the qualities of first-class forged iron.

P. B. 3.

Phosphor-bronze. Casting, showing a break; durable, forgeable, and malleable.

P. B. 4.

Particularly adapted for the manufacture of tools for powder-mills and utensils for chemical laboratories, because it will never emit sparks, not even on a grindstone.

Two slide-valves, 2 pair bearings, 3 pieces forged and bent, 1 coupling annealed, consisting of steel, forged iron, and phosphor-bronze.

Icke's Phosphor White Metal.

Hard metal, invented and produced by the exhibitor, for filling out of locomotive and waggon axle-bearings, &c. It is estimated to be three times more durable than any other white metal.

Hosking (F. G.), Crown-street, Wollongong.—Model of Wollongong Harbour.

This exhibit represents, in the space of 2 feet square, the Harbour of Wollongong, a leading seaport of Illawarra, a great coal-mining and dairying district of the Colony. It shows the manner in which the coal is shipped, and the position of the staiths and steam-cranes. It represents also the class of vessels trading to that port, the position of the light-house and of a substantial T jetty. This exhibit was awarded Bronze Medal at the Sydney International Exhibition of 1879-80.

Parrot (C. E.) and Roberts, Sydney Arcade, Sydney.—Engineering Plans.

1. One plan (framed and glazed), showing plan and elevation of proposed bridge, Sydney to North Shore, with plan of site, 4′6″ × ′3.

2. Perspective drawing of same bridge, 3′6″ × 2′.

Preston & Co., Australian Wheel Factory, Abercrombie Street, Sydney, —Wheels; Felloes, ; Spokes, Shafts,

Bradford (D. & R.), Elizabeth, Street, Sydney.—Cast-iron Gate-post; Fancy Balcony Railings.

Dadd (Edward), 59, Old South Head Road, Paddington.—Horse shoes, for various purposes.

Jones (Evan), Royal Arcade, and Hunter Street, Sydney.—Press for Coining, made at the Atlas Foundry, in New South Wales, from Colonial Iron.

Sook, (W. C. H.), 225. Elizabeth, Street, Sydney.—Samples of packing-cases; Samples of boxes Samples of tea-chests.

Bailey & Kerr, 111, King Street Sydney.—Printing Machine and Type.

Hellyer (R.), 97, Bathurst Srteet, Sydney.—Roller Stamp.

Tatham (Edwin) & Co., Mullens Street, Balmain, Sydney.—Patent Fire Alarm.

Hellyer (R.) Bathurst Street, Sydney.—Electro-plate.

Section H.

FOOD PRODUCTS.

(CLASSES 110 to 136.)

Aiken Brothers, Tamworth.—Flour.

Atkin and Horder, John Street, Singleton.—Flour White and Maize-meal.

Boylson (M.), and Sons, Bathurst.—Flour

Cohen and Levy, Tamworth.—Flour.

Conolly, (M.). Argyle Flour-Mills Goulburn.—Flour, two Yellow exhibits.

Crago (Francis), Bathurst. (E.G. Barker, York Street, Sydney, Agent).—Flour.

Dalton Brothers, Summer Street, Orange.—Flour.

Ferguson Brothers, Wellington. (E G Barker, York Street, Sydney Agent).—Flour

Jindera Flour Mill, Jindera, near Albury. Flour.

Kite (William), Britannia Mills, Bathurst.—Flour.

Matthews (G.) & Son, Bathurst. —Flour.

Palmer (C. C.), Moama, (E. G. Barker York Street, Sydney, Agent).—Flour.

Scott (W. F.), Orange.—Flour.

Storey & Crago, John's Street, Singleton.—Flour.

Tremain (W.), Bathurst, (E. G. Barker, York Street, Sydney, Agent).—Flour.

Webb and Co., Bathurst.—Flour.

Wostenholme (John), West Maitland.—Flour.

Laurie (Alex. T.), Rawdon Vale, Port Stephens District.—Arrowroot.

Munn (A. L.), Merimbula.—Maizena.

Wade (John) and Co., Dungog.—Corn Flour.

Blencowe (Thomas), Wilds' Meadows, Burrawang, near Moss Vale.—Butter.

Brandon (Thomas), Burrawang, near Moss Vale.—Butter.

Bresnahan (D.), Wild's Meadows, Burrawang, near Moss Vale.—Butter.

Burrawang Farmers' Club and West Camden Agricultural Society, Burrawang, near Moss Vale.—Butter.

These exhibits of butter, which will be found particularized elsewhere as individual entries, were specially prepared for the Calcutta International Exhibition. The butter is esteemed in the Sydney Market as of very good quality, and the makers are among the best in the Burrawang District.

Candelo Butter Company, 37 Sussex Street, Sydney, W. F. Harris, Sole Agent.—Fresh and Salt Butter (Tinned).

Cannon (Manes), Leichhard St., Waverly, Sydney.—Butter in Jars or Tins.

Craven (T. W.), 164, Sussex Street, Sydney.—Butter in Tins. Five Tins, each 1 lb.

Graham (Jas),—Spring Valley Farm, Burrawang, near Moss Vale.—Butter

Grice (Joseph), J.P.—Wild's Meadows, Burrawang, near Moss Vale.—Butter.

Hayter (Jeremiah), Burrawang, near Moss Vale.—Butter.

Miller (J. R.), M'Clintock Farm, Burrawang, near Moss Vale.—Butter.

Moore (John), Sen, Wild's Meadows, Burrawang, near Moss Vale.—Butter.

M'Grath (John.) Burrawang, near Moss Vale.—Butter.

Seery (Thomas), Yurrang, Burrawang, near Moss Vale.—Butter.

South Coast & West Camden Co-operative Co. Office: Sussex Street, Sydney. Butter.

Turnbull (Mrs. J.), Spring-grove Farm, Burrawang, near Moss Vale.—Butter.

Vance (W.), Burrawang, near Moss Vale.—Butter.

Anderson and Fortinton, Double Creek Factory, near Bega.—Cheese. [*vide* Foley Brothers, under this Class.]

Black (John Marshall), Ayrdale Cheese Factory, Wolumla.—Cheese.

Candelo Butter Co.—Sussex Street, Sydney.—(W. F. Harris, Agent.)—Cheese.

Craven (T. W.), 164 Sussex Street, Sydney.—Cheese and Lard.

Foley Brothers.—113 Sussex-Street, Sydney.—Cheese. Two exhibits of six each.

Manufactured respectively by P. H. Wood, of Yarranung, near Bega, and Anderson and Fortinton, of Double Creek Factory, near Bega.

Hanscombe (William), Nambugga Factory, Bega.—Two cheese.

Jauncey (John), Angledale, Bega.—Cheese.

Otton (John), Bega.—Cheese.

Pass & Reynolds, Old Station Brogo.—Cheese.

South Coast and West Camden Co-operative Co.—Office, Sussex Street, Sydney. John Graham, Manager.—Cheese.

Tooth (R. L.), Island Factory, Kameruka, near Bega.—Cheese.

Wood (P. H.), Yarranung, near Bega.—Cheese. [*Vide* Foley Bros].

Wren Henry), Kameruka, Bega.—Cheese.

Sydney Meat-preserving Company, (Limited), Moore Street, Sydney.—Preserved Meats and Soups.

Biddell Bros., 505-507, George Street, Sydney.—Confectionery.

Dyason Bros., Sydney Jam Co., Alexandria, near Sydney.—Assorted Jams.

Taylor (Sarah M.), Myall Villa, Railway Terrace, Burwood.—Jellies and Jams preserved from fruits grown in the Colony.

Craven (T. W.), 164, Sussex-Street, Sydney.—Honey.

Smallwood (D. J.), Caddai Road, Pitt Town, Hawkesbury River.—Honey.

Barrett & Co., Buckingham Street, Sydney.—Extract of Sarsaparilla.

Hume & Pegrum, Regent Street, Redfern, Sydney.—Waters of a medicinal character. Sarsaparilla; Seltzer Water; Lithia; Acidulous Water; Potass; Magnesia.

Smallwood, (D. J.), Caddai Road, Pitt Town, Hawkesbury River.—Native Sarsaparilla.

Best (M. S.) & Co., Maitland.—Tomato Sauces.

Hogg (S. P.) & Co., 12, Wynyard Lane, Sydney.—Empress of India Curry Powder.

Marks & Murphy, 709, George Street, Sydney.—Lager Beer.

Tooth, (R. L.), Kent Brewery, George Street West, Sydney.—Ale.

Barrett & Co., Buckingham Street, Sydney.—Cider; Ginger Wine

Beattie (Hugh,), Brooklyn, North Wagga Wagga.—Names, of Wines, Hermitage, 1881. and Sherry,

Bouffier & Brothers, (F. J.,) Ansoul, Marcobrunner, Hunter River.—Name of Wines, Pineau, Claret, Hermitage, Hock, Reisling, Port, (Brown Muscat, Madeira, Burgundy; Vineyard, Marcobrunner.

Brecht (Carl,) Rosemount, Denman.—Name of Wines, Port, Reisling, Burgundy, Claret, Muscatel, Shiraz, Madeira; Madeira Sweet, Hermitage, Pineau, Vineyard, Rosemount.

Bucholtz, (Frederick A.), Fredericksburg, Mudgee.—Names of Wines, Hermitage; Muscat; Madeira; Fredericksburg; Vineyard.

Drinan (Thomas), Branxton, Hunter River.—Names of Wines, Madeira; Vineyard, Branxton, Black Creek.

Fallon (James T.), 91, Pitt Street, Sydney.—Names of Wines, Reisling, Vineyard, Murray Valley, Vineyard, near Albury, Tokay—Verdeilho, Aucarot, Burgundy, Carbinet, Hermitage, Shiraz.

Fleming (George T.), Hauteville, Albury.—Names of Wines, Reisling, Shiraz, Verdielho, Muscat, Vineyard, Hauteville.

Francis (George,) Douglas Vale Port Macquarie.—Names of Wines, Portobella, Vineyard, Douglas Vale.

Frere (Lenace) St. Hilaire Vineyard, Albury.—Names of Wines, Champagne, Dry and Sweet, Vineyard, St. Hilaire.

Gorus John (T.), Eshcol Park, Minto, near Campbelltown.—Name of Wines, Muscat Brown, 1880; Madeira, Sherry, Hermitage, Port Muscat, Vineyard, Eshcol.

Green (Walter) Johannisburg, Cessnock.—Names of Wines, Pineau White; Shiraz White; Vinieyard, Johannesburg.

Harbottle (Biddulph) and Alsop, Ettamogah, Albury.—Names of Wines, Ettamogah, Red and White, Reisling, Aucarot Red Muscat; Vineyard, Ettamogah.

Jack (David) Fernmount, Inverell.—Names of Wines, Hermitage, Verdeilho, Shiraz; Vineyard, Fernmount.

Kelman (James) Kirkton, Vineyard, Branxton, Hunter River.—Name of Wine Kirkton, Hock,
Kirkton White.
,, Madiera.
,, Yellow.
,, Claret.
,, Hermitage

Lindenman (H. J.), Cawarra, Paterson River.—Name of Wine, Hermitage; Cawarra, Burgundy; Claret; Hock. Vineyard.

Munro (Alexander) Bebeah, Singleton.—Name of Wine, Claret; Hermitage; Verdit; Shiraz; Reisling; Verdeilho; Pedro Xemenes; Pinea; Port; Muscat, 1878; Vineyard, Bebeah, 64 acres.

Murray (Andrew), Bannokburn, Inverell.—Name of Wine, Red Hermitage; Salvanna; Shiraz; Madeira Malbee; Vineyard, Hillside.

Ogilvie (Hon. Edward D.), M. L. C., Yulgilbar, Clarence River.—Name of Wine, Yulgilbar No. 1 and No 2, and Red; Vineyard, Yulgilbar.

Smith (James Montague), Hinton, Hunter River.—Name of Wine, Estephe, Nulla Nulla, Sweet White, Dry Red, Dry White; Nulla Nulla.

Stephen (G. H.) & Co., Ivanhoe, Hunter River.—Name of Wine, Ivanhoe Sauterne; Hermitage: Burgundy; Vineyard, Ivanhoe, Hunter River.

Wilkinson (John A.), Coolalta, Branxton.—Name of Wine, Claret Hock: Hermitage; Malbec: Burgundy Pineau Madiera 1881; Vineyard Coolalta, Branxton.

Wyndham (John), Dalwood near Branxton.—Name of Wine, Red Dalwood and White Dalwood; Vineyard, Dalwood.

Barrett & Co., Buckingham Street, Sydney.—Bitters.

Hume and Pegrum, Regent Street, Redfern, Sydney.—Samples of Noyeau; Maraschino; Curacoa, and Usquebaugh.

Hume and Pegrum. Regen Street, Redfern.—Fruit Wines.

Hume and Pegrum, Regent Street, Redfern, Sydney.—Staughton Bitters; Orange Bitters; Golden Bitters; Aromatic Tonic Bitters; Champagne Quinine Wine; Phosphated Tonic Wine; Quinine Nervine.

Barrett and Co., Buckingham Street, Sydney.—Limejuice Cordial.

Barrett and Co., Buckingham Street, Sydney.—Syrups and Cordials.

Hume & Pegrum, Regent Street, Redfern, Sydney.—Raspberry Vinegar; Limejuice Cordial; Lemon Syrup.; Peppermint; Cloves; Pineapple Syrup.

Hume and Pegrum, Regent Street, Redfern, Sydney.—Lemon Syrup; Raspberry Syrup.

Barrett & Co., Buckingham Street, Sydney.—Ærated and Mineral Waters

Cooma Pastoral, Agricultural, and Ploughing Association. Cooma.—Small sample of Mineral Water from Spring near Cooma.

Hume & Pegrum, Regent Street, Redfern, Sydney.—Lemonade; Tonic-water; Seltzer-water; Ginger Ale and Soda-water.

Barrett & Co., Buckingham Street, Sydney.—Vinegar.

Monk (D. J.,) 295 Sussex Street, Sydney.—Vinegar.

James (H.), Picton.—Bacon; Hams.

Meaker, (George.), Spring Bank, Bega.—Bacon Hams.

Picton, Camden, and Campbelltown Agricultural Society, Picton.—Bacon; Hams.

South Coast and West Camden Co-Operative Co. Office, Sussex Street, Sydney.—Bacon; Hams.

Section I.

AGRICULTURE AND HORTICULTURE.

(CLASSES 137 to 143.)

Allen, Executrix and Executors of the Late John, Stony Creek, Young.—White Wheat.

Andrews (R. E.), Woodside, Manning River. Maize; Maize, in cob.

Bridle (Wm.), Rose Vale, Tumut.—Twelve cobs white Spindle Maize.

This exhibit is valued for its deep flat grain, enormous yield, and easiness of mastication.

Brown, (John.), Burrundulla, Mudgee (per Mudgee Agricultural Society).—Maize.

Cohen and Levy, Tamworth.—Wheat.

Condie (Robert.), Shoalhaven. (See South Coast and West Camden Cooperative Company).—Maize.

Conlon (J.), Picton. (Shown under auspices of Picton, Camden, and Campbelltown Agricultural Society).—Black Sorghum.

Conlon (B.), Freeman's Reach, Hawkesbury River.—Maize, in cob.

Box (Herbert A.), Burrundulla, Mudgee.—Maize, White and Yellow.

Craven (T. W.), 164, Sussex Street, Sydney.—Maize and Oats; Millet-seed.

Craven (T. W.), 164, Sussex Street, Sydney.—One bag, each half bushel of the following—Blue boiling Peas, Hunter River; Yellow Hogan Maize, Macleay River; Feed Oats; Seed Oats (Tartarian) Mixed black and White Cape Barley, Manning River.

Craven (T. W.), 164, Sussex Street, Sydney.—Maize cobs.

[Crawford (A. R.), Moona Plains, Walcha.—White Haricot Beans.

Dalton Brothers, Summer Street, Orange.—Wheat; Oats.

Ditzell (John), Mosheim Inverell.—Wheat; Maize; Skinless Barley.

Doust (D.), Camden.—Black Sorghum; Planter's Friend; Pearl Millet.

Downes (F. W.), Camden.—Large and Small yellow Maize; Buckwheat; Planter's Friend.

Dryer (John K.), Tamworth.—Barley; Wheat; Oats; Maize; Hungarian Millet.

Dunk (T.), Camden.—Creeping Wheat; White Wheat.

Foly (James), Lower Peak, Mudgee.—Wheat.

Geehan (James), Freeman's Reach, Windsor, Hawkesbury River.—Maize.

Gillespie (L.), Orange.—Maize ; Oats.

Graham (Neville), Murrumburrah.—Wheat.

Grant, (William) Mullamuddy, near Mudgee.—Maize (large).

Hayter (Jas), Camden.—Oaten Hay ; Lucerne Hay.

Henderson (Wm.), Spring Farm, near Uralla.—White Wheat.

Hurst (William) Bathurst.—Wheat, 97½lbs.

Hutchison (James), Singleton.—Maize ; Lucerne Seed ; Wheat ; Oats ; English Barley.

Hyam (S. H.), Wharf Street, off Market Street, Sydney.—Peas, Beans Barley, Maize and Oats.

Isbester (Thomas,) Gulgong, near Mudgee.—Wheat ; Skinless Barley ; Skinless Oats ; Mammoth Rye.

Jauncey (John), Angledale, Bega.—Maize, Yellow Dented.

Kelly (Peter,) Wilbertree, Mudgee.—White Oats.

Kelly (Peter), Wilbertree, Mudgee.—Maize, large, and Ninety-day.

Keollner (Kilian,) Tarraganda, Bega.—Maize, Old Yellow.

Mackay (G.E.), Albury.—White Oats.

Martin (W. Fraser), J. P., 131, Sussex Street, Sydney.—Maize.

McAlister (R. & J.), Tumut.—Red Spindle Corn or Maize, in cob.

McFadyen (John), Bolwarra, West Maitland.—Maize ; Sorghum.

McLean (James), Corowa.—Wheat, White, and Red.

McMahon (T.), Burragorang.—Large Yellow Maize, yielding 86 bushels per acre.

Moffatt (Josiah), Uralla.—Wheat.

Moore (J. E.), Camden.—Maize ; Early French ; Black Sorghum.

Munn (A. L.), Maizena Works, Merimbula.—Maize in cob.

Munsie (Samuel), Kelvin Grove Farm, near Uralla, New England.—One box Maize Cobs ; Wheat.

Onslow (Mrs.), Camden Park.—Maize; Buckwheat; Sorghum.

Page (Samuel), Mullamuddy, near Mudgee.—White Oats.

Picton, Camden Campbell town Agricultural Society. Maize, Wheat, Rye, Buckwheat, Linseed, Sorghum, Millet Seed, Oaten Hay, Lucerne Hay.

Robertson (D. F.), Brungle, near Tumut.—Wheat.

Scott (W. F.), Orange.—Wheat.

Seerey (Thos.) Yurrang, Burrawang.—Oats.

Smallwood, (D. J.) Caddia Road, Pitt Town, Hawkesbury River.—Large White Maize ; Large Yellow Maize ; Ninety-day Maize.

Smith (Irwin,) Wallendbeen.—Wheat.

South Coast and West Camden Co-operative Company. Office, Sussex-street, Sydney; John Graham, Manager.—Wheat; Maize.

Southwood (G. J.), Mudgee.—(Per Mudgee Agricultural Society).—Wheat.

Spring Hill Farmers' Union, Spring Hill.—Cereals.

Storey & Crago, John-street, Singleton.—Wheat; Lucerne-seed.

Summerhays (George,) Pioneer Farm, Monteagle,—Young. White Lammas Wheat.

Taylor,—Deighton, Springfield, Figtree P. O., Illawarra.—Seed Maize.

Urquhart (John), M'Donald's Creek, Mudgee.—Wheat.

Vickery (Edward,) Tumut.—White Spindle Maize, Horsetooth Maize.

Wall (John), Botobolar, Mudgee.—Wheat.

Walsh (Samuel,) Long Swamp.—Wheat (white).

Warboise (T.,) Spring Hill, near Orange.—Oats (white).

Webb & Co., Bathurst—Wheat.

Wingham (Geo.,) Spring Grove, near Orange.—Wheat (white).

Wulson (William) Merton-street, Bathurst.—Barley; Maize; Oats.

Young (O. K.,) High-street, West Maitland.—Wheat; Barley; Oats; Maize; Sorghum Seed; Planter's Friend: Lucerne Seed; Blue Millet Seed.

Bowen (G. B.,) Bowen Mount, Kurrajong.—Oranges, Lemons, and Mandarin Oranges.

Dunston (Wm.,) Kurrajong.—Oranges and Lemons.

Griffin (T. H. F.,) Richmond.—Oranges.

John, (Thomas,) Junr., Kurrajong.—Oranges and Lemons.

M'Keown (W. H.,) Roseville, Gordon.—Oranges and Lemons.

Peck (Henry,) Kurrajong Heights.—Oranges and Lemons.

Ritchie (R. A.,) George and Macquarie Streets, Parramatta.—Ploughs.

Ritchie (William), Granville.—1 Light Plough; 1 No. 1 Plough, with revolving coulter and extra finish; 1 Two-horse Plough, without point or filing.

Wright (John,) 377, Sussex-street, Sydney.—No. 1 Plough, 3 Plough, 1 pr. Harrows, 1 Scarifier, 1 set Whipple-trees, 1 Plough (electro-plated and painted) 1st prize at Hawkesbury Show.

Section K.

ETHNOLOGY, ARCHÆOLOGY, AND NATURAL HISTORY.

(CLASSES 144 to 149)

Commissioners for New South Wales.—Six Photographs of Australian Aborigines, originally prepared for the New South Wales Commissioners for the Amsterdam Exhibition by J. W. Lindt, of Grafton, New South Wales, and Melbourne, Victoria.

Commissioners for New South Wales.—Views of Old Sydney and Parramatta at and about the period of settlement.

1. View of the settlement of Port Jackson, 20th August, 1788.
2. South-east View In Sydney.
3. Direct South View of the Town of Sydney.
4. Western View of Sydney Cove.
5. North View of Sydney Cove, showing Pitt Road. (Pitt-street is now the second business street of Sydney.
6. Eastern View of Sydney.
7. Brickfield Hill, or High-road to Parramatta, 11th August, 1796. (This is the site of the chief business thoroughfare of Sydney, George-street.)
8. View of the Governor's House, Rose Hill, Parramatta.
9. View of Rose Hill, Parramatta.
10. By water to Parramatta, with distant View of the Western Mountains.
11. Youlong Cerah-la-Diangy, (Initiation of native youth into the privileges of manhood by extraction of front tooth.
12. Burning a Corpse.

Cox (Allaster E.), 75, Hunter-street, Sydney.—Ethnological collection. (Illustrating Australia and surrounding Islands, &c.)

Tatham (Edwin), Mullens-street, Balmain, Sydney.—Glass Shade, containing—Australian Aborigines Camp; Australian Kangaroo Chase; Australian Opossum Hunt—all made by the exhibitor from glass. Illustrative of habits of Australian blacks.

Jewell (Edward), Botany, near Sydney.—Fishing Lines for catching Schnapper, Bream, Cod, Flathead, Shark, and other fish.

Bailey and Kerr, 111, King, street, Sydney.—Stuffed Animals-including Birds of New South Wales.

Bray (James S.), 84, Forbes-street, Woolloomooloo, Sydney.—Collection of Birds.

Bray (James S.) 84, Forbes-street, Woolloomooloo, Sydney,—

1. The Diamond Snake (Morelia Spilotes, non-venomous), North Shore, Sydney, N. S. W.
2. The Lace Lizard (Hydrosaurus varius), North Shore, Sydney, N. S. W.
3. The Tiger Shark, or Wobbe gong (Crossorhinus barbatus), Sydney Harbour, N. S. W.
4. The Dog Fish, or Puppy Shark, Sydney Harbour, North Shore, N. S. W,
5. The Hammer-headed, or Shovel-nosed Shark (Zygœna leenwenii), Sydney Harbour, North Shore, N. S. W.

6. The Great Kangaroo (Macropus Major), Wellington, N. S. W.

Young one taken and thrown out of the pouch by its mother when hard pressed by dogs.

7. The Native Bear (Phascolarctos cinerea), North Shore, Sydney, N. S. W.

Female and young one, the young one just having left its mother's pouch for good.

8. The Common Bush Opossum (Phalangista vulpina), North Shore, Sydney, N. S. W.

Female and young one, the young one taken from out of its mother's pouch attached to teat.

9. The ring-tail Opossum (Phalangista laniginosa), North Shore, Sydney, N. S. W.

Female and two young ones, the young just left the mother's pouch and almost able to take care of themselves.

10. The Great Flying Phalanger, or Great Black Flying Squirrel, male (Petaurista taguanoides), North Shore, Sydney, N. S. W.

11. The Flying Squirrel-like Belideus, or Flying Sugar Squirrel, female (Belideus sciureus), North Shore, Sydney, N. S. W.

12. The Native Cat (Dasyurus viverrimus), North Shore, Sydney, N. S. W.

Commissioners for New South Wales.—Exhibits procured for the Commission by the Trustees of the Australian Museum, Sydney.

Commissioners for New South Wales.—Exhibits procured for the Commission by the Trustees of the Australian Museum, Sydney; Group I.—Paradise and Bower Birds, &c; Group II.—Honey-eaters; Group III.—Owls spodarge; Group IV.—Wood-swallows and Swallows; Group V.—Flycatchers; Group VI.—Pigeons; Group VII.—Larks and Epthianuras: Group VII.—Tree-climbers; Group IX.—Robins and Thickheads; Group X.—Kingfishers, Bee-caters; Group XI.—Pardalotes, Malurl, Finches, Bristle-birds etc? Group XII.—Cockatoos and Parrots, etc; Group XIII; Group XIV.—Lyre Birds; Group XV.—Snipe, Plovers, &c.; Group XVI.—Rail and Quail; Mamals; Reptiles (in two group); Fishes.

Tost and Rohu, Naturalists, Taxidermists, Furriers, and Tanners, 60, William-street, and 112, Oxford-street, Sydney.—Stuffed Birds of Australia.

Bailey and Kerr., 111, King-street, Sydney.—Mounted and Unmounted Specimens of Ferns.

Cumming (Alexander) Secretary to N. S. W. Commission, Sydney.—Collection of Australian and New Zaland Ferns, mounted in 24 sheets, by the late Mr. H. H. Field, of Sydney. (Non-competitive.)

Willson (Affriatt S.), Lawson, Blue Mountains.—12 Tanned Snake; Skins; 2 Skins, Diamond Snake; 2 Skins, Brownbanded or Tiger Snake 2 Skins, Brown Snake; 6 Skins, Black Snake.

SOUTH AUSTRALIA.

Section A.

FINE ARTS.

(*CLASSES* 1 *to* 6.)

Hammer and Co., Adelaide.—Photographs ; Opal Glass Pictures.

Sweet (S. W.), Adelaide.—Landscape Photographs.

Greenfeld (M. W.), Norwood.—Photographs ; Painting from Photographs.

Freeman (George), Adelaide.—Photographs.

S. A. Institute, Adelaide.—Photographs.

Crawford (Frazer S.), Adelaide — Photographs.

Spiller (E.), (Government Printer), Adelaide.—Photo-lithographs.

Foelsche (Paul), Northern Territory, S. A.—Photographed Photographs.

Gray (Mrs. George), North Adelaide.—Models of Fruits in Wax.

South Australian Committee, Adelaide.—Models of Fruits in Wax.

Section B.

EDUCATION AND APPLICATION OF LIBERAL ARTS.

(*CLASSES* 7 *to* 15.)

Goyder (G. W.), (Surveyor-General), Adelaide.—Maps.

Conigrave and Collison, Adelaide.—Drawings and Maps.

Braddock and Sons, Adelaide.—Printing Inks.

Spiller (E.), (Government Printer), Adelaide.—Lithography ; Letterpress Printing ; Bookbinding ; Account-book Ruling ; Cromo-lithography.

Hartley (J. A.), Education Department, Adelaide.—School Maps.

Mais (H. C.), C. E., Engineer-in-Chief, Adelaide—Working Drawings and Photos of S. A. Railways.

Section C.

HEALTH.

(*CLASSES* 16 *to* 22.)

Braddock & Sons, Adelaide—Eucalpytus Oil.

Cross (Charles), Gawler—Medicinal Products ; Indigestion Powders ; Indigestion Drops.

Section D.

FURNITURE AND OTHER OBJECTS FOR THE USE OR DECORATION OF DWELLING-HOUSES AND OTHER BUILDINGS.

(*CLASSES* 23 *to* 37.)

Kapunda Marble & Building Co., Kapunda.—Marble.

Kapunda No. 1 Marble Co., Kapunda.—Marble.

Sibley's Marble Co., Angaston.—Marble.

Priest (Thompson), Mintaro, S. A.—Flagging Slate.

Fraser (Hugh), Adelaide.—Carved Mantelpiece.

Section E.

(*CLASSES* 38 *to* 52.)

Nelson (V.), Adelaide—Fancy-work

Nelson (Mrs. G. J.), Adelaide—Ornaments from Seeds.

Section F.

RAW PRODUCTS AND MANUFACTURES FROM PRODUCTS NOT INCLUDED IN OTHER SECTION.

(*CLASSES* 53 *to* 81.)

Braddock and Sons, Adelaide.—Benzole; Gold Lacquer; Brunswick Black.

South Australian Salt, Plaster, and Manure Co., Yorktown—Refined Salt; Coarse Salt; Gypsum in Crystal; Plaster of Paris; Plaster Ornaments.

The S. A. Salt Company, Snowtown—Fine Dried Salt; Fine Undried Salt; Coarse Salt; Gypsum "Selenite"; Plaster of Paris.

Haines (William M.P.), Teatree Gully, Adelaide—Kaoline (pipe-clay).

Pflaum (F.) and Co., Blumberg—Mimosa Bark,

Davenport (Samuel), Beaumont.—Olive Oil.

Barnard (G. L.) Walkerville—Olive Oil; Refined Olive Oil.

Anderson & Robertson, Adelaide.—Olives; Olive Oil; Olive Cake; Olive Hair Oil; Olive Oil Blacking; Olive Machinery Oil; Salad Oil; New Dried Soap.

Pitcher (J. G.), Adelaide.—Pearl Shells.

Holtze (Maurice), Fannie Bay, Northern Territory, S A—Peanut Oil; Teal Oil; Pine Fibre; Rhea Fibre; India-rubber Tree; Upland Cotton; Uncultivated Cotton Indigo Plant; Rhea Plant.

Knott & Meyder, Howley, Northern Territory, S. A.—Uncultivated Cotton,

McMinn (G. R.), (Acting Government Resident)—Collection of Indigenous Woods, Northern Territory, S. A.—Collection of Indigenous Woods.

Corporation of Copper Mines of S A., Adelaide.—Copper Ores.

Hancock (Captain), Moonta—Copper Ores

The Proprietors of the Wallaroo Mines, Limited, Wallaroo.—Trophy of Copper in Cakes and Ingots.

English and Australian Copper Company, Limited, Port Adelaide.—Copper in Cakes and Ingots; Refined Copper worked into Fancy Designs

Simeon (John), Adelaide—Silver Lead Ore

Umberumberka Silver Lead Mining Company, South Australia—Silver Lead Ore.

Barossa Flax Milling Co., Lyndoch Valley.—Flax.

Parsons (The Hon. J. Langdon), Minister of Education, Adelaide.—Collection of Mineral Specimens from the Northern Territory.

Jansen (Olaf), Pine Creek, Northern Territory.—Auriferous Quartz.

Specimens (two) of auriferous quartz from Eleanor Reef, Pine Creek. Thickness of reef, from 6in. to 2ft.

The last 200 *tons of stone crushed averaged* 4 *ozs of gold to the ton.*

Collection of small specimens of auriferous quartz from Eleanor Reef.

Sample of auriferous quartz from Telegraph Reef, Pine Creek. Depth of workings, 40ft; thickness of reef, 20 in; average yield, 1 oz 3 dwts of gold to the ton

The Alta Gold Mining Union, Northern Territory, S. A.—Auriferous Quartz.

Twenty-eight specimens of auriferous quartz from No 5 North Union Reef. Thickness, 1ft.

The last crushing of 140 *tons yielded* 980 *ozs. of gold.*

Sample of auriferous quartz from No. 4 North Union. Thickness of reef, from 3in to 12in. Average yield, 60 ozs. of gold to the ton.

Three specimens of auriferous quartz from No. 1 South Lady Alice Reef. Average yield, 1oz. 8dwts. of gold to the ton.

Que (Ping), Union, Northern Territory, S. A.—Auriferous Quartz

Seven specimens of auriferous quartz from No 4 South Union Reef. This reef is vertical, and 8ft in thickness. Average yield 1 oz 2dwts of gold to the ton

McIntyre (Stephen), Senders Hill, Northern Territory, S. A.—Auriferous Quartz.

Four specimens of auriferous quartz Reef 2ft in thickness Average yield 1oz 6dwts of gold to the ton.

Extended Union Gold Mining Co., Northern Territory, S. A.—Auriferous Quartz.

Three specimens of auriferous quartz from No 3 North Extended Union Reef flat, 20 inches wide Average yield 2 ozs of gold to the ton.

Arnheim Gold Mining Co., Northern Territory, S. A.—Auriferous Quartz.

Five specimens of auriferous quartz from Spring Hill Reef, The Twelve Mile, McKinlay River, 120 miles inland. Vertical reef 7ft. to 9ft. in thickness, sunk 72ft., and opened out to a level of 104ft. 1,070 tons crushed averaged 1oz. 8dwts. to the ton.

Tennant (D. B.,) Northern Territory, S. A.—Auriferous Quartz.

Two samples of auriferous quartz from the Clifton Reef. Thickness, 2ft. Average yield, 6 ozs. of gold to the ton.

Five samples of auriferous quartz from North Clifton Reef. Thickness, 1ft. 6in. Average yield 2 ozs. of gold to the ton.

Samples of auriferous earth. From a "mullock" leader varying from 6in. to 12in. in thickness.

Although the gold is barely visible when the stuff is crushed, it yields over 5 ozs. of gold to the ton.

Beetson Bros., Old Howley, Northern Territory, S. A.—Auriferous Quartz.

Collection of auriferous quartz. From reef averaging 22in. in thickness, and yielding 3½ozs. of gold to the ton.

Samples of tailings believed to retain a large quantity of gold. Also surface specimens of copper ore.

Lawrie (J. H.), Northern Territory, S. A.—Auriferous Quartz.

Eight small specimens of auriferous quartz. From a reef adjoining the Arnheim Company's property at Spring Hill, McKinlay River.

This reef has just been opened, and presents indications of being exceedingly rich.

Grove Hill Gold Mining Co., Northern Territory, S. A.—Auriferous Quartz. Specimens of Auriferous Quartz. From the Margaret and Yam Creek Claim (120 miles inland from Palmerston). The Margaret specimens were taken from about six tons of quartz, which, when crushed, yielded over 220 ozs. of gold. Those from Yam Creek gave 5 ozs. to the ton. After the extraction of all the free gold from the stone by the usual process, the arsenical pyrites gave by assay from 150 ozs. to 185 ozs. of gold to the ton.

Parsons (The Hon. J. Langdon), Minister of Education, Adelaide.—Alluvial Gold.

Daniels & Co., Mount Wells, Northern Territory, S. A.—Tin Ores. Large block of tin ore taken from the surface, and six samples of lode and one of stream tin. A large number of lodes have been opened out, and the Mount bids fair to show, with further labor and prospecting, that its whole mass is interstratified with stainferous deposits.

Cruikshank and Barrett, Howley, Northern Territory, S. A.—Tin Ores. Samples of tin in coarse granite. The lode is 25ft. wide, standing 7ft. above the surrounding surface, and is traceable for a long distance. Assay test gives 37 per cent. of tin.

Mount Wells Tin Mining Co., Northern Territory, S. A.—Tin Ores. Seven samples of tin ore. From the Company's property at Mount Wells (100 miles inland). Specimen A taken from ground where there is a regular network of lodes varying from 1ft. 6in. to 3ft. in thickness. Samples of stream tin from land north of Mount Wells.

Marker (Emile) & Co., Pine Creek, Northern Territory, S. A.—Copper Ores. Eight specimens of copper ore from leased property on Copperfield Creek, 146 miles inland, near Pine Creek. There is a large outcrop of copper at the surface, from 4 feet to 5 feet in thickness and traceable for a long distance.

Adelaide Tin Mining Co., Northern Territory, S. A.—Silver Lead Ore. Six specimens of silver lead ore from the No. 2 Adelaide Company's property at Snadden's Creek, 115 miles inland. Lode about 2 feet in thickness, with a shaft sunk on it about 20 feet deep.

Crozier (The Hon. John), Adelaide.—Wool.

Hawker (The Hon. G. C.), Bungaree, S.A.—Wool.

Angas (J. H.), Collingrove.—Wool.

Murray (The Hon. A. B.), Magill.—Wool.

Sanders (James) & Co., Canowie.—Wool.

Pitts (E. W.), Dry Creek, S. A.—Wool.

Murray (John), Mount Crawford, S. A.—Wool.

Crozier (Wm.), Moorna Station, River Murray.—Wool.

Porter (T. S.), O'Halloran Hill.—Wool.

Duffield & Makin, Koonoona Station, S.A.—Wool.

Burford (W. H.) & Sons, Adelaide.—Fancy Soaps, Soap, Tallow, Oil.

Section G.

MACHINERY AND IMPLEMENTS, MEANS OF TRANSPORT, APPLIANCES AND PROCESSES USED IN THE COMMON ARTS AND INDUSTRIES, INCLUDING MODELS AND DESIGNS.

(*CLASSES* 82 *to* 109.)

Cottrell (T. L.), Adelaide.—C Spring Barouche.

Chamber of Manufactures, Adelaide.—Model of Tramcar.

Simpson (A.) and Son, Adelaide.—Fire-proof Safe; Japanned Toilet Ware; Stamped Tinware; Ice-water Urns.

Duncan and Fraser. Adelaide.—Sporting Dogcart.

Clarke Bros., Adelaide.—Four-wheeled Drag.

Barlow (Thos.) and Sons, Adelaide.—Wagonette. [T. Barlow & Sons are carriage builders to His Excellency Sir James Fergusson, Bombay, and have obtained medals at all the Exhibitions during the last thirty years.]

Duncan (James), Adelade.—Model of patented invention for change of gauge on Railways.

Conigrave and Collison, Adelaide.—Hullett's Combination Truck, for running on two different gauges of Railway, without any manipulation. The model is constructed for 3ft. 6in. and 5ft. 3in. gauges, used in Australia.

Section H.

FOOD PRODUCTS.

(*CLASSES* 110 *to* 136.)

Murray (Alex.) & Son, Craiglee, Coromandel Valley.—Biscuits, Jams and Jellies

Fotheringham (D. & J.), Gawler —Sauces

Hague (Edward), Angaston—Dried Currants

Hardy (Thos.), Bankside—Dried Raisins

Anderson & Robertson, Adelaide. —Vinegar

Margetts (C.), Parkside—Tomato Sauce

Barton & Co., Hackney—Tomato Sauce; Pickles; Curry Powder; Condiments

Magarey and Co., Hindmarsh. —Flour

The Adelaide Milling and Mercantile Co., Adelaide—Flour.

The Aerated Bread Co., Adelaide.—Biscuits.

Conrad (L.), Adelaide—Preserved Meats.

The Australian Fruitand Vegetable Preserving Co., Kent Town, S A—Jams and Jellies; Preserved Fruits; Preserved Vegetables.

Hanton (H. B.) & Co., Fullarton, SA—Jams and Jellies; Tomato Sauce.

The Angaston Preserving Co. Angaston, S. A.—Fruits preserved in Syrup.

Allen (P. R.) & Co., Daly River, Northern Territory, S.A.—Sugar-cane

Ah Din Chin, Margaret River, Northern Territory, S. A.—Sugar-cane.

The de Lissaville Sugar Co. Northern Territory, S A.—Sugar cane. Estimated to yield three tons of sugar per acre. Sugar Open-pan evaporation and concentration. From eight Month's ratoon canes. Grown on very red ironstone land.

Holtze (Maurice), Fannie Bay, Northern Territory, S.A.—Preserved Banana and Safflower; Tapioca; Mandioca; Arrowroot; Pulse; Dhol; Rice Maize; Pea Nuts; Cassava Root.

Hughes (E. C.), S. M., North Adelaide.—Trepang,

Hardy (Thomas), Bankside, S.A. —Wines.

Seppelt (B.), Seppeltsfield, S. A. —Wines. Prizes awarded at London, Paris, Sydney, Melbourne, Adelaide, and Bordeaux.

The Auldana Vineyard Proprietors, (W. P. Auld, Manager).—Wines.

Davenport (Samuel), Beaumont, S. A.—Wines.

Elder (Sir Thomas), Birksgate, S.A.—Wines.

Crozier (The Hon. Jno.), Oaklands, S.A.—Wines.

Penfold and Co., The Grange, Magill, S.A.—Wines.

Gilbert (Wm.), Pewsey Vale, S. A.—Wines.

Jacobs (Wm.), Moorooroo, S. A.—Wines.

Young (C. B.), Walkerville.—Wines.

Smith (S.) & Son, Yalumba, Angaston, S. A.—Wines.

Salter (E.) & Son, Saltram—Angaston, S. A.—Wines.

Phillipson Brothers, Adel,—Ale and Stout.

Bickford (A. M.) & Sons, Adelaide.—Cordials.

Section I.

AGRICULTURE AND HORTICULTURE.

(CLASSES 137 to 143.)

Ramsay (J. G.) & Co., Mount Barker.—Stripping Machine

Dobbie (A. W.), Adelaide.—Hand-power Seed-sower; Horse-power Seed-sower.

Stott (J. W.) & Son, Alma.—Stump and Stone Jumping Plough.

Martin (J.) & Son, Gawler.—Tenoning Machine.

Mellor Brothers, Adelaide, Kapunda, and Quorn.—Stripping Machines; Stump Plough.

Ashby (Thomas), Clare, S. A.—Tuscan Wheat; Lion Defiance Wheat

Thyer (Joseph), Belalie, S. A.—Purple Wheat.

Bell (Allan), Mount Barker, S. A.—White Tuscan Wheat; Purple-straw Wheat.

McFarlane (D. M.), Port Lincoln, S. A.—White Tuscan Wheat

Angas (J. H.), Collingrove, S. A.—Purple-straw Wheat; White Tuscan Wheat; White Lammas Wheat; Skinless Oats.

Hackett (E. & W.), Adelaide.—White Tuscan Wheat; Skinless Barley; White Oats.

Salt (S. A.), Plaster, and Manure Co., Yorketown.—Gypsum-Manure.

Section K.

ETHNOLOGY, ARCHÆOLOGY, AND NATURAL HISTORY.

CLASSES 144 to 149.)

South Australian Institute, Adelaide.—Stuffed specimens of Emu and Kangaroo

Haacke (Dr.), Adelaide.—Specimens of Natural History.

Malcolm (W.), Gawler.—Ostrich Feathers; Ostrich Eggs.

Minchin (R. E.), Adelaide.—Live Emus; Emu Eggs.

VICTORIA.

Section A.

FINE ARTS.

(CLASSES 1 to 6).

D'Alton (Henrietta.) Stawell: Paintings of Australian Wild Flowers.

Department of Education.—Water-colour Drawings of 20 of the principal State Schools of Victoria.

Mather (John), 95, Collins-street West, Melbourne. —Oil Paintings: A Morning Walk by the Yarra: A Sunny Bank.

Parsons, (Mrs. George), St. Ruan, Charnwood-road, St. Kilda, Melbourne.—Oil Paintings, View of the Buffalo Mountains-View at Myrtleford. Water-colour Drawings: View on the Ovens River; In the Lonely Bush; Near Maffra, Gippsland; View of the Gipsland Ranges.

Rielly (Henry), 3, Eastbourne-street, Windsor:—Oil Painting; A Passing Shower.

Rowan (Mrs. Ellis), 29, Queen-street, Melbourne.- Twelve Water-colour Drawings of Australian and New Zealand Native Flowers, Berries, etc.

Sands and McDougall, 46, Collins-street West, Melbourne.—Chromo-lithographs, as prepared for the Victorian Art Union.

Goldsborough, (R.) and Co, Bourke-street West, Melbourne.—Chromo-lithographs.

New Zealand Loan and Mercantile Agency Co., Colins-street West, Melbourne.—Engravings.

Syme, (David) and Co., Collins-street East, Melbourne.—Engravings, Framed, Views of Australian Scenery, Public Buildings, Notable Incidents, etc., also Views of Melbourne, published as Supplements to *The Illustrated Australian News.*

Troedel and Co., Lithographers and Printers, 43 Collins-street East, Melbourne.—Specimens of Art Chromo-lithography.

Wilson and Mackinnon, Collins-street East, Melbourne.—Engravings from *The Australasian Sketcher*, illustrative of Australia lasian Scenery, Public Buildings and Works, Notable Incidents, &c.

Ballarat City Council Ballarat.—Photographic Views of Ballarat.

Board for Protection of Aborigines 69, Temple-court, Melbourne—Photographic Views of the Stations established as Homes for the Aborigines of Victoria; Portraits of Aboriginals.

Botanic Gardens, Melbourne.—Photographic Views of Melbourne Botanic Gardens (in 6 frames).

Department of Education.—Photographs of School Buildings, framed and in book.

Department of Post Office and Telegraphs.—Photograph of the General Post Office, Melbourne.

Department of Public Works.—Photographs of Public Buildings in Melbourne.

Department of Trade and Customs, Custom House, Melbourne.—Lighthouses, Vessels in Dock; Alfred Graving Dock, Williamstown, Melbourne, Victoria.

Ellery (R. L. J.), Director, Observatory, Melbourne.—Photographs of the Moon, enlarged Photograph of the Moon, and Bird's-eye View of the Observatory.

Knipe (J. H.), 24 Collins-street East, Melbourne.—Photographs of the Exterior and Interior of the Melbourne International Exhibition, 1880-81.

Lindt (J. W.), 7, Collins-street East, Melbourne:—Photographs of the Members of the Royal Commission for Victoria at the Calcutta Exhibition; Views of Australian Scenery; Portraits of Aboriginals; Views of Australian Scenery, in album cases.

Melbourne City Corporation.—Framed Photographic Panoramic Views of the City of Melbourne, taken from the Dome of the International Exhibition (complete in 24 pictures.)

Melbourne Cricket Club,—Photograph of the Melbourne Cricket Club Ground; Photograph of Club Parlour and Grand Stand.

Richmond City Council.—Photographic views of Richmond Town Hall, Post and Telegraph Office, Court House, and other Public Buildings, framed.

Tuttle and Co., 84, Elizabeth Street, Melbourne :—Frames of highly finished Photographs ; Porcelain enlarged Photo-picture, finished in Water-colours.

Fuller (Miss Elizabeth), Inverleigh.—Flowers, formed with Native Birds' feathers.

Smith (Miss Annie), School of Art Needlework, 9, Flinders-street East, Melbourne.—Portière, worked in Crewels upon Bolton Sheeting(old English pattern) ; Chair, Tiger Lilies worked on Satin and mounted in Ebonized Wood ; Portiére, white Trumpet Lilies worked on Satin Sheeting ; Screen, three-fold, embroidered Silks designed on Satin and mounted in Ebonized frame.

Stokes and Martin, 29 Little Collins-street East, Melbourne.—Medals and Medal-dies, engraved by the firm for various public bodies and institutions.

Section B.

EDUCATION AND APPLICATION OF LIBERAL ARTS.

(CLASSES 7 to 15).

Australian Health Society, 41, Collins-street East, Melbourne.—Sanitary Tracts, issued by the Society.

Central Board of Health, Melbourne.—Bound volume of Seventeen Reports of the Board, together with Acts, Regulations, Instructions, and Plans affecting Health Legislation in Victoria.

Crellin (William), Newry-street, North Fitzroy, Melbourne.—Book of Tables for the use of Land Mining Surveyors, entitled Crellin's *Complete Traverse Tables* ; Instrument for reading the same.

Department of Education.—Special Collection for the Calcutta International Exhibitions.

Department of Government Statist.—Victorian Year Books, Statistical Register of Victoria ; Census Tables and Report for Decade ending 1881.

Department of Mines and Water Supply.—Reports issued by the Department.

Department of Patents, Trade Marks, and Copyrights, Melbourne.—Complete Indices of all Patents granted in Victoria.

Department of Post Office and Telegraphs.—Report upon the Affairs of the Post Office and Telegraph Department, 1882.

Lawrence and O'Farrell, 23, Elizabeth-street, Melbourne.—The Australian Brewers' Journal; Mineral Water, Wine, and Spirit Traders' Review.

McIvor, (R. W. E.)—Flinders-lane East, Melbourne.—Bound Copies of The Australian Farmers' Journal.

Moonen (Leo.), 21 and 23, Collins-street East, Melbourne.—Musical Instruction Books.

Public Library (Museums) and National Gallery of Victoria.—Catalogue of the Public Library of Victoria. 2 vols. 8vo. 1880.

Shillinglaw (John J.), F. R. GIS., Secretary, Central Board of Health, Melbourne.—Early Historical Records of Port Phillip—The First Annals of the Colony of Victoria.

Department of Lands. Maps—Photo-lithographed, prepared and issued by the Department of Lands and Survey:—Australia, Victoria, Melbourne.

Department of Railways.—Maps of the Railways of Victoria; Raised Modelled Map of Victoria, showing Mountains, Rivers, Plains, and Railways of Victoria.

Department of Trade and Customs.—Charts of Coast and Harbours of Victoria.

Department of Mines and Water Supply.—Australia, Geologically coloured; Victoria Geologically coloured; Geological Map of the Ballarat Goldfield (with sections); Geological Map of the Sandhurst Goldfield; Geological Map of the Ararat Goldfield (with section); Geological Map of the Stawell Goldfield (with notes); Geological Map of the Creswick Goldfield; Geological Map of the Beechworth Goldfields; Geological Map of the Learmonth District; Map of Victoria, showing the distribution of Forest Trees; Plan and Sections of the Underground Workings of the Hustler's Line of Reef, Sandhurst; Plan and Sections of the Underground Workings of the Garden Gully Line of Reef, Sandhurst: Plan and Sections of the principal Reefs at Stawell; Twenty Plates of Fossil Fruits discovered in alluvial gold drifts.

Ellery (R. L. J.), Government Astronomer, Observatory, Melbourne.—Map showing Distribution of Rainfall over Southern Australia in 1812.

McColl (Hugh), St. Kilda, Melbourne.—Bird's-eye View of Victoria, showing proposed Route of the Grand Victorian North-Western Irrigating, Traffic, and Motive Power Canal; projected by B. H. DODS, C.E. Plans showing mode of construction, exhibited by Hugh McColl.

Whitehead (E.) and Co., Collins-street, East, Melbourne.—Travellers' Map of Victoria.

Curtis (James), 39, Armstrong street, Ballarat.—Specimen Book of General Letter-press Printing.

Department of Government Printer.—A collection of books in choice bindings issued and bound by the Department.

Department of Post Office and Telegraphs.—Specimens of the Postage Duty, Fee, and Freight Stamps, Post Cards, and Embossed Envelopes manufactured in this Office.

Newlands (W. H.), Castlemaine.—Specimens of Printing, &c.

Noone (John), Crownlands Office, Melbourne.—Photo-lithographic copies of Plans on full and reduced Scales, produced by the process used in the Crown Lands Office.

Tredel and Co., 43, Collins street, Melbourne.—Book containing Specimens of Lithography in all its branches.

Whitehead (E.) and Co., 67, Collins-street East, Melbourne.—Specimens of Heraldic Engraving; Engraving on Copper and Steel, Die-sinking and Embossing, Ball Programmes; Menu Cards, Maps, of Victoria, lithographed and printed.

Fincham (George), Bridge Road, Richmond, Melbourne.—Photograph of the Grand International Exhibition Organ, built by the Exhibitor, for the International Exhibition at Melbourne, 1880-1. Specimen sheets of spotted Metal for Organ pipes cast in the Exhibitor's Factory, at Richmond, from Australian Metals.

Nicholson and Co., 45 and 47, Collins-street East, Melbourne.—Musical Publications and Magazines.

MacGeorge (E. T.). Avoncourt, St. James' Park, Hawthorn.—Drill Test or Borehole Indicator for the Survey of Bores which have deviated from their intended direction.

(See also Section G.)

Section C.

HEALTH.

(*CLASSES 16 to 22*)

Blanche (Henry Barkly), 6 Little Collins-street East, Melbourne.—Photograph of plan of a Mechanical Scavenger. Explanation of same.

Draper and Sons, 83 Bourke-street West, Melbourne.—Patent Earth Closets; Patent Earth Commodes.

Australasian Deodorizing, Disinfecting and Fertilizing Company, Limited, The Exchange, Melbourne.—Hunter's Patent Vegetable Disinfectant.

Bosisto (Joseph), M.P., J. P., President of the Victorian Commission for the Calcutta International Exhibition, 1883-84, Richmond, Melbourne.—Chemical and Pharmaceutical Preparations obtained from the Eucalyptus and other indigenous vegetation, prepared and exhibited by Joseph Bosisto, M.P., Richmond, Melbourne, late President of the Pharmacy Board of Victoria, by whom the Eucalyptus preparations were first introduced both in Australia and in Europe.

Felton Grimwade and Co., Wholesale Manufacturing Chemists and Druggists, 31 and 33 Flinders-lane West, Melbourne.—Drugs and Medicines.

Lewis and Whitty, 28A, Flinders-lane, Melbourne.—Seidlitz Powders.

Rocke Tompsitt and Co., Wholesale Druggists and Manufacturing Chemists, 3, Flinders-street West, Melbourne.—Fluid Magnesia; Insectibane.

Royal Aromatic Horse and Cattle Spice Company, Castlemaine.—Horse and Cattle Spice.

Sullivan (Joseph), 15, King William Street, Fitzroy, Melbourne.—Disinfectant preparations.—Fluid Double Chloride of Aluminum; Iodoform Pocket Disinfectant; Powder Disinfectant; Bullet-formed Disinfectant, composed of Sulpho-carbonate, Chlorine, and Chloride of Aluminum. Anti-corrosive Soluble Glass for the Prevention of Corrosion in Boilers and on the Bottoms of Ships.

Rocke Tompsitt and Co., Wholesale Manufacturing Chemists and Druggists, 3, Flinder-street West, Melbourne.—Silks Elastic Surgical Goods; Stockings; Leggings; Knee-caps; Thigh Stockings; Ladies' Abdominal Belts; Gentlemen's Riding Belt.

Section D.

FURNITURE AND OTHER OBJECTS FOR THE USE OR DECORATION OF DWELLING-HOUSES AND OTHER BUILDINGS.

(CLASSES 23 to 37).

Alcock and Co., 132 Russell Street, Melbourne.—Billiard Table, manufactured of Queensland Tulip Wood; Combination Cabinet Pool Money Receiver and Marking Board; Electric Marking Arrangements; Revolving Cue Stand and Cues; Hall and Garden Seats made from Victorian Timber.

Horwood (William), Albion Foundry, Castlemaine—Seats and Lounges for Halls, Conservatories, Gardens, &c.

McLean Brothers and Rigg, Wholesale Ironmongers and Manufacturers, 69 Elizabeth-Street, Melbourne—Chairs for Public Halls or Theatres, iron-framed, painted white and gold, upholstered in crimson velvet.

Melbourne Glass Bottle Works Company, Graham Street, Emerald Hill, Melbourne—Bottles of Green Glass, made from Beach Sand.

Bendigo Pottery Company, Limited, Epsom, Sandhurst—Majolica and Stoneware; Articles in Rockingham, Cane, and Whiteware.

Nolan (Luke), Park Street, West, Brunswick, Melbourne—Drain Pipes Stoneware; Filter, Patent Double Cylinder; Vases, Terra cotta; Jars, Preserving and Pickling; Jars, Cane and Rockingham Ware; Jugs, Figured Stoneware; Jugs, Majolica; Teapots &c.

Zevenboom (John) and Son, 223 Elizabeth Street, Melbourne,—Brushware.

Board for Protection of Aborigines, 69 Temple-court, Melbourne.—Basketware, made by Aboriginals; Woven Mats from Grass, made by Aboriginals; Child's by one of the Aboriginal Women at Coranderrk Station.

Knobel (Gustav Adolph), C. E., Arcona, near Merton, County Delatite.—Fan Ventilator, Compound, Silent (improved), effecting at once both Plenum and Vacuum; adaptable also as an Exhauster of Vitiated Air from Mines, Manufactories, and Public Buildings; also as a Fan for Smelting Works, Forge Fires, and Winnowing.

Cawkwell (Henry Atkinson), Australian Tile Works, Malvern.—Mosaic Tiles and Encaustic Tiles for Flooring.

Hood (John), 72 Cobden Street, Emerald Hill.—Wood Enamelling, Specimens of.

Sangwell (Alfred), Caulfield, near Melbourne—Art Vases, and Cones, for Growing Plants; Rustic Tables.

Nettleberg (Morris), 67 Beach Street, Sandridge, and Elizabeth Street, Melbourne.—Rugs and Mats, made from the Skins of various Australian Animals.

Penal Establishment, Pentridge.—Fancy Bordered Mat, Lettered Coir Mat; Open Brush Mat; Plain Brush Mat.

Reformatory, Ballarat; J. Evans, Superintendent—Door Mat.

Schofield (J.) and Co., Big Hill, Yarra Flats.—Fur Rugs, made from the Skins of Victorian Animals; Fur Mats, made from the Skins of Kangaroos, Opossums, Native Bears, &c. Opossum Skin Railway Rug; Native Bear Skin Buggy Rug; Native Cat Skin Rug (dyed imitation Opossum Skin Border); Wallaby Skin Carriage Rug; Native Bear Skin Carriage Mat (complete specimen); Kangaroo Skin Mat; Native Bear Skin Hall Mat; Wallaby Skin Piano Mat; Bed-room Mats; Opossum Skin Mat (complete specimen).

Whittall (G. M.) and Co., Beehive Chambers, Elizabeth Street, Melbourne.—Hearth Rugs of great variety.

Square of Brussels Carpet, representing a Victorian fern-tree gully. Specially designed and manufactured to the order of the exhibitors, by M. Whittall and Co., of Kidderminster.

Pentelic Marble Mining Company, No Liability, Upper Murray Normanby Chambers, Chancery lane, Melbourne.—Marble Slabs, polished and unpolished (Red fossil, Dove, Brown, Grey and other varieties).

Sleight and Co., Madeline Street, Carlton, Melbourne.—Granite and Bluestone Slabs, polished and unpolished.

United Shire of Metcalfe, Metcalfe—Polished Column of Granite from the Harcourt Quarries.

Edwards and Kaul, Manufacturing Jewellers, Collins Street West, Melbourne.—Model of the Surface Workings of a Gold Mine, in the form of a Massive Inkstand, size 36 in. × 12 in. Epergne of Solid Silver, illustrative of Victorian Flora and Fauna. At the base are introduced Groups of Aboriginals, Kangaroos, Wallabies, Emus, &c.; also specimens of Australian Flora. Emu Eggs prepared—in the form of Inkstands, Vases, Cups, &c., in sterling silver and electroplate, including Arabesque, Grecian, Etruscan, and Australian.—Jewel Caskets, Tobacco Stands, Smokers' Companions, &c.

Stokes and Martin, 29 Little Collins Street East, Melbourne.—Massive Centrepiece, representing Australian Fern-tree, the base showing a Gully Scene displaying both the Fauna and Flora: an Australian Aboriginal spearing a Kangaroo; a Lubra in Alarm at the appearance of a Black Snake. Mounted Emu Egg Tea Set, Inkstands, Vases, and Claret Ingete Jugs, etc.

Jeans (Samuel England), High Street, St. Kilda, Melbourne—No. 3 Reflector Gas Cooking Stove, with Boiler and all Utensils complete.

Reformatory, Ballarat.—Potato Net.

Section E.

FABRICS INCLUDING APPAREL, TOILETS REQUISITES AND OTHER OBJECTS OF PERSONAL WEAR OR USE.

(CLASSES 38 to 52.)

Penal Establishment, Pentridge—Blankets and Rugs.

Victorian Woollen and Cloth Manufacturing Company, Limited, Geelong.—Tweed Cloths, Fancy; Scarlet Cloth; Blue Coating; Blue Flannel; Scarlet Flannel; Brown; Coating; Railway Uniform Cloth; Grey Coating.

Penal Establishment, Pentridge—Serge Frock, Serge Trousers; Blue Cloth Trousers; Dickey: Flannel Shirt.

Reformatory, Ballarat; J. Evans' Superintendent.—Jacket, Trousers and Vest, as worn by boys in the Reformatory.

James and McGan, 42, George-street, Fitzroy, Melbourne.—Men, Women, and Children's Boots and Shoes, finely finished.

Penal Establishment, Pentridge.—Men's Boots; Boys' Boots; Women's Boots.

Reformatory, Ballarat.—Boots made by the Boys detained in the Institution.

Lang (William), North Fitzroy, Melbourne.—Felt Hats; Hats in various stages of manufacture.

Stevenson (L.) and Sons, Warehousemen, Hat and Cap Manufacturers, 14, Flinders-lane East, Melbourne.—Felt Hats and Helmets, made from Victorian Wool, and Fur Hats and Helmets, Gossamer make; Hats and Helmets, Cork lined.

Pincus (Max), Hargreave-street, Castlemaine.—Perfumery, Antiseptic, having Eucalyptus for its base; Perfumery, Handkerchief; Toilet Powders.

Rocke (Tompsitt) and Co., 3, Flinders-street West, Melbourne.—Lavender Water; Florida Water.

Nettleberg (Morris), 67, Beach-street, Sandridge, and Elizabeth-street, Melbourne'—Skins of Australian Animals tanned in the Hair, made up in various Articles of Apparel, and for Use and Ornament.

Section F.

RAW PRODUCTS AND MANUFACTURES FROM PRODUCTS NOT INCLUDED IN OTHER SECTIONS.

(CLASSES 53 to 81.)

Department of Mines and Water Supply.—Collection of Fac-similes of large Nuggets of Gold found in Victoria.—Specimens of Ores obtained by the Mining Department of Victoria during Boring with the Diamond Drills.

Industrial and Technological Museum.—Collection of Minerals and Ores of Victoria.

Kitchingman (Edwin Lewis), Pyrites Works, Bethanga.—Mineral Ores of various descriptions; Coloured and Kaolin Clays; The New Elk Powder and Plate Polish, in tins and boxes, manufactured from the Bethanga Ores.

Levi (Nathaniel), 147, Collins-street East, Melbourne.—Coal, from Cape Patterson.

Royal Commission for Victoria at the Calcutta International Exhibition, 1883-84.—Gold Trophy, designed by Mr. Arthur Everett, of the Mining Department of Victoria.

The entrance to the court is through a golden arch, which represents the amount of gold found in the colony of Victoria up to the 27th July, 1883, *viz.*, 51,844,235 ounces, equal to 3,002 cubic feet. The dimensions of the arch are as follows:—Height, 28 feet; width 25 feet, by a depth of 6 feet; height to crown of archway, 16 feet 6 inches, with an opening of 13 feet. It is surmounted with the arms of Victoria and the flags of different nations, together with shields on which are inscribed the names of the four principal gold-fields, *viz.*, Ballarat, Sandhurst, Castlemaine, and Stawell.

School of Mines, Ballarat; F. M. Krause, Curator.—Collection of Minerals and Ores of Victoria.

[A complete Descriptive Catalogue setting forth mode of Geological occurrence, locality, donor's name, &c., may be obtained.]

Botanic Gardens, Melbourne; W. R. Guilfoyle, F L. S., Director.—Collection of Ferns.

Calhoun (Andrew), Portarlington.—Acacia Pycnantha (Golden Wattle) Seed and Gum.

Department of Agriculture.—Seeds and Carpological Specimens of Australian Timber Trees.

Industrial and Technological Museum of Victoria.—Collection of Specimens of Woods, from the Trees and Shrubs of Victoria, adapted for economic purposes. Prepared for exhibition by F. W. Barnard.

[Several of the examples are from freshly cut trees and are liable to warp or crack; duplicates are shown to illustrate variety of grain and character.]

Mueller (Baron Von), K.C.M.G., and Ph. D., F. R. S., Government Botanist, Melbourne.—Australian Woods, specifically named:—Eighty kinds in Book form; 30 in form of Rulers; 20 in form of Paper Knives; 10 in form of Pipes; 20 in form of Handles; 40 in form of Flower Vases, Cups, Dice-boxes, and various other Articles; Australian Woods used in various manners by Artisans (30 kinds); Eucalyptus Seeds (40 varieties); Collection of Products from various Coniferous Trees cultivated in Victoria; Collection of Gums, Resins, Kinos, from Australian Trees specifically named.

Royal Commission for Victoria at the Calcutta International Exhibition, 1883-84.—Fern Gully or Grotto, representing a common feature of a Victorian Forest. The ferns for this collection have been specially collected for the Commission by Mr. W. R. Guilfoyle, Director of the Melbourne Botanic Gardens, at various spots along the Gippsland line of railway.

South Gippsland Tramway and Timber Co., Ld., 100, Elizabeth-street, Melbourne.—Black-wood, from Gippsland, in polished Slabs.

Jopling (John R.), Ballarat Bone Mills, Ballarat.—Neatsfoot Oil.

Carwardine (Walter Henry), Charlestone-road, Sandhurst.—Soap, Domestic.

Johnstone (J. H.), Western Beach, Geelong.—Dental and Detergent Soap Tablets. (As there are no Chemicals in the Soap, it can be used in the most delicate operations.)

Tasmanite Patent Paint and Chemical Works; Benies, Michel, and Paterson, Charles Stewart, 115, Spencer-street, Melbourne.—Antifriction Grease.

Upton (W.) & Son, Geelong.—Soap, Ordinary Domestic; Soap, Eucalyptus, in bars and tablets, for hospitals and sanitary institutions; also adapted for general use. Made with Bosisto's Eucalyptus Oil.

Altson (D.) & Co., 25, Bourke-street West, Melbourne.—Carriage Harness for four in hand; pair Horse and single Saddles; Childs' Chair Stirrup leather Girths; Bridles; Breast-plate; Knee Caps; Spurs; Pad Cloth; Belting.

Biesenthal (Francis) & Co., 164, Russel-street, Melbourne.—Trunk, Solid Leather Regulation Overland; Portmanteau, Solid Leather and Leather Expanding; Gladstone Bags, American nickel mountings; Shooting Bags; Gun Case, Leather.

Cunnack (George), Castlemaine.—Sole Leather, manufactured for export.

Curtis (John), Portmanteau-maker, 95, Bourke-street West, Melbourne.—Improved riveted iron frame Solid Leather Portmanteaus, with brass corners and turn-over edges.

Giles (Ernest), Kew, Melbourne.—Set of Double Harness for pair Buggy Horses (made by D. Altson and Co., Melbourne)).

Krer (Thomas), 4, Armstrong-street, Ballarat.—Saddle, Side and Gentleman's, quilted doeskin seat; Saddle, Gentleman's, plain and Steeplechase.

Michaelis Hallenstein and Co., 30, Lonsdale-street East, Melbourne.—Sole Leather, Light and Medium.

Pausacker Evans and Co., 8, Lonsdale-street West, Melbourne.—Portmanteaus; Trunks.

Purdue (Terence William), Lydiard-street, Ballarat.—Saddles, Hunting, Park, various; Harness, Double and Single, Brown and Black Leather.

Mueller (Baron) Von, Government Botanist, Melbourne.—Victorian Silk and Cocoons, prepared by Mrs. Timbrell.

[In order to ensure a good display of Victorian grown Wool, the time for receiving Exhibits in this Class has been extended till samples of the New Clip will be available. The full entries will be contained in a later Edition of the Catalogue.)

Buchanan (Major J. J. N.), Titanga, Lismore.—Merino Fleeces—X. R. R., 4 and 6-tooth Rams; V. D. G., Lambs; J. B., aged Ewes; T., 2-tooth Ewes.

Clarke (The Hon. Sir W. J.), Bolinda Vale Estate, Lancefield.—Fleeces from 3-year old Cross-breds from Leicester Ewes by Merino Rams; Fleeces from 3-year and 2-year old Leicester Sheep.

Department of Agriculture;—Wool various Samples, from the Government Experimental Farm.

Geelong and Western District Agricultural and Horticultural Society, Geelong.—Wool, various Samples, grown in the Geelong and Western Districts by Members of the Society.

McIntyre (Peter), Mameluke, Beaufort.—Fleeces, washed from Merinos, plain Washed, and from 15-month old Merinos, plain Washed.

Russell (Hon. Philip), Carngham, near Ballarat.—Twenty-four Merino Fleeces—2-tooth, 4-tooth, Lambs.

United Shire of Metcalfe, Metcalfe; W. C. Reeves, Secretary.—Wool, Unwashed and Washed, grown on Coliban Park Estate.

Patent Hydreulic Freestone Company, Limited, Sandridge; Offices, 56, Queen-street, Melbourne. —Freestone, made from sand without Cement, produced in a mouded, finished state; Various Articles of every-day use, made by the Company; Architectural Embellishments for brick and other buildings.

Tasmanite Patent Paint and Chemical works; Benies, Michel, and Paterson, Charles Stewart, 115, Spencer-street, Melbourne.—Dry and Silicate Colours; Paints ready for use.

Corrie (William), Flock Manufacturer, a'Beckett-street, Melbourne.—Curled Hair, Purified for Bedding Material; Flocks, Purified for Bedding material; White Flock.

Lewis and Whitty, 28A, Flinders-lane, Melbourne.—Starch; Blue; Blacking; Soap Powder; Knife Polish.

National Agricultural Society of Victoria, Bourke-street West, Melbourne.

Burston (S.), and Co., Flinder-streets, Melbourne.—Malt, Pale; Amber; Black.

Smith, Winn, and Fielding, 150, Flinders-lane East, Melbourne. —Malt, Amber; Pale.

Tasmanite Patent Paint and Chemical Works; Benies, Michel, and Paterson, Charles Stewart, 115, Spencer-street, Melbourne. —Sheep Dips; Knife Polish; Moulders' Facing Powder; Brass and Metal Powders.

Section G.

MACHINERY AND IMPLEMENTS, MEANS OF TRANSPORT, APPLIANCES AND PROCESSES USED IN THE COMMON ARTS AND INDUSTRIES INCLUDING MODELS AND DESIGNS.

(CLASSES 82 to 107.)

Horwood (William), Castlemaine.—Bell, 24 and 18 inches diameter; Garden Seats, cast metal.

Langlands Foundry Company, Limited, Yarra Bank, Melbourne. —Wrought-iron Railway Waggon Wheels.

Phœnix Foundry Company, Limited, Ballarat.—Photograph of the 100th Locomotive Engine manufactured by the Company.

The Patent Universal Continuous Automatic Raliway Brake, Co., Ld., Collins-street, Melbourne.—Set of Wood's Patent Hydraulic Automatic Railway Carriage Brake Gear, as used on the Passenger Trains on the Victorian Railways, where it has been successfully applied 2,500,000 times to Trains in motion without one serious failure.

Tyrer (P.), 425, King Street, Melbourne.—Spark Arresters, suited to Locomotive and Portable Engines, especially those Burning Wood. The object of this Invention is to arrest all dangerous Particles of fire before they reach the Funnel.

Masters (W. H.) & Co., Edison Bell Telephone Agency, 55, Little Collins Street West, Melbourne.—Telephones, with battery, wires, and all fittings complete, manufactured in the establishment of the Firm, Melbourne.

Australian Lithofracteur Company, Limited, 31, Little Collins Street East, Melbourne.—Models of Dynamite and Lithofracteur Cartridges, and Drawings of various methods of using the same in Mining, Submarine, and other operations.

Johnson & Co., Tyne Foundry, Yarra Bank, Melbourne.—Rock-boring Machine, with Hose Coupling, Pole Clip, and Connexions, complete.

Large Photographs (framed) of the Tyne Foundry; also Photographs of Bridges (iron girder), Steam Engines, and other Machinery manufactured by the Firm.

MacGeorge (E. T.), Avoncourt, St. James' Park, Hawthorn.—Drill Test or Borehole Indicator for the Survey of Bores which have deviated from their intended direction, consisting of Twelve Automatic Compass Clinometers, a Guide Tube to contain six of these, and a Recording Instrument.

Mitchell and Elliot, Bourke-Street West, Melbourne.—Model of Mechanical Combination of Rotatory Machinery for removing Barnacles, Slime, and other Fouling on Ship's Bottoms, without Docking. To be called the "Ships' Submarine Anti-fouling Machine."

Watts (Walter Keevil), Riverside House, St. Heliers Street, Abbotsford, Melbourne.—Model of Torpedo Boat, showing horizontal water lines.

Ballarat Carriage Company, Armstrong Street, Ballarat.—Buggy, Single, with movable Top. Made specially for Indian use.

Giles (Ernest), F.R.G.S., Kew, Melbourne.—Buggy, fitted for Private Use for pair Horses.

Stevenson and Elliott, Carriage-builders, 181, King Sstreet, Melbourne.—Pair of Dapple-grey Carriage Horses, modelled in Wood (life-size); shown in conjunction with buggy exhibited by Ernest Giles.

White (Daniel), 245, Swanston Street, Melbourne.—Phaeton, Light Stanhope, with Lever Hood, trimmed Morocco and Cloth, and best Enamelled Leather; Pole, Shafts, Lamps, and Brake complete. Specially designed and constructed by the maker for the Calcutta Exhibition.

Danks (John), 42, Bourke Street West, Melbourne.—Suet and Drop Light Lubricators; Steam and Organ Whistle; Set Bailey Gauge Mounting; Set of Pet Cocks, &c.

Douglas and Sons, 100, Collins Street East, Melbourne.—Two Five-light Gasaliers; Two Gas Brackets, complete.

Furaley (Joseph Frederick), 113, Rathdown Street, Carlton, Melbourne.—Horse Shoes and Bullock Shoes hand-made.

McKinnon (John).—Mansfield Horse Shoes, one set polished and one set plain.

Michell (Graham), Kirk's Horse Bazaar, Melbourne.—Horse Shoes, Graham Mitchell's "Anti-concussive."

Danks (John,) 42, Bourke Street West. Works, Yarra-bank South; Melbourne.—Water Lifter, Improved Patent; Double Barrel Pump; Pump on Frame; Gresham's Injectors; Ejectors: Hydrant, Improved; Directors; Pair Unions; Fire Brigade.

Section H.

FOOD PRODUCTS.

(CLASSES 110 to 136.)

Oriental Tea Company, 144, 146, 148, Flinders Lane West, Melbourne.—Exhibits showing process of Tea Blending, etc. :—Challenge Mixture, 2nd quality; Royal Mixture, 1st quality; Standard Mixture, 2nd quality, with Green; Universal Mixture, 3rd quality; Viceroy, 1st quality, pure Indian Pekoe; Rajah, 2nd quality, pure Indian Pekoe and Souchong.

Bates (Charles), 243, Albert Street, Melbourne.—Cocoa Essence and Dandelion.

Danell (Sebastian), Sydney Road, Brunswick, Melbourne.—Preparations of Pressed Flour: Macaroni, Naples; Macaroni Fine; Macaroni, Genoa; Vermicelli, Fine; Vermicelli, Superfine; Spaghetto, Schietti; Fernetta; Nudela; Lasagne; Lasagnette; Sundries.

Swallow and Ariell, Sandridge, Melbourne.—Grand Trophy, containing:—Biscuits; Cakes Silk Dressed Flour; Self-Raisng Flour; Aërated; Self Raising Aërated Wheat Meal; Infants' Food; Treacle and Golden Syrup.

Cocharane (R. and J.), Eastwood, Bairnsdale, Gippsland.—Arrowroot, grown on the River Mitchell, Gippsland.

Currie (John), 5, Little Collins Street West, Melbourne.—Cheese specially manufatured and packed for the Indian Market.

Heidelberg Cheese and Condensed Milk Co., Ld., Yarra Flats; Offices, 61 Flinder Street West, Melbourne.—Cheese for export.

Hutton (J. G.), 9, William Street, Melbourne.—Butter, prepared for the Indian Market. Cheese, for export.

Melbourne Milk Supply Co., Ld., 70, Queen Street, Melbourne.—Cheese, prepared for the Indian Market.

Wilson (David), Springvale Dairy, Mount Egerton, Ballarat.—Butter (Fresh), in air-tight Glass Jars. Cheese (Victorian Stilton), made with Vegetable Rennet to suit the Native Indian Market.

Wood and Co., 9, Market Street, Melbourne.—Butter, in 1 lb. tins for export.

Flemington Meat Preserving Company, 12 Bond Street, Melbourne: Tinned Meats.

Hutton (J. G.), 9, William Street, Melbourne.—Bacon and Ham, prepared for the Indian Market.

Watson and Paterson, Queen Street, Melbourne.—Bacon, Middles and Hams, packed for export; Fritz Sausage.

Western Meat Preserving Co., Ld., Colac.—Tinned Meats and Soups.

Coker (Mrs. Thomas), Ascot Vale, Melbourne.—Pickled Grapes.

Mellon (Francis), Dunolly—Apples ; Pears ; Plums ; Raisins.

Oldmeado (T. A.) and Son, Dunolly.—Apricots, preseved in Syrup ; Peaches, preserved in Syrup; Plums, preserved in Syrup ; Pears, preserved in Syrup ; Tomatoes preserved in Water.

United Shire of Metcalfe, Metcalfe.—Fruit, grown in Shire of Metcalfe.

Dillon Burows & Co., La Trobe Street West, Melbourne.—General Assortment of Confectionery including—Specially prepared Gum Confectionery ; Glazed, Crystallized, and Preserved Victorian Fruits ; Victorian Citron Orange, and Lemon Candied Peel; Sugar Candy.

Red Cross Preserving Co., Ld., Chaple Street, South Yarra, Melbourne.—Jams, from Victorian Fruit ; Jellies, specially prepared for export.

Spink (E. J. & S.), 25, Market Street, Melbourne.—Jams, Assorted Fruits, grown in Victoria ; Jellies, assorted, packed in air-tight tins ; Preserves, packed for export.

Walker (J. H.) and Son, 203, Bourke-Street West, Melbourne.—Jams, assorted, made from Fruit grown in Victoria, Standard brand.

Felton, Grimwade & Co., 31 and 33, Flinders Lane West, Melbourne.—Capsicene ; Gingerine ; Soluble Essence of Ginger; Soluble Essence of Ginger Ale ; Essence of Orange ; Essence of Bitter Orange; Essence of Lemon ; Essence of Cayenne ; Essence of Rennet (Thompson's).

Brown (William Piper), Dandenong Road, Malvern Melbourne.—Tomato Sauce.

Browne (Montague), Lara Street South Yarra, Melbourne.—Tomato Sauce.

Harris (Alfred A.), Sutherland Street, Clunes.—Tomato Sauce : Bute Sauce Chutney.

Lewis and Whitty, 28, Flinders Lane, Melbourne.—Curry Powder.

Pierce (W. C.), & Son, McIvor Road, Sandhurst.—Pickles ; Sauces.

Red Cross Preserving Co., Ld., Chapel Street, South Yarra, Melbourne.—Pickles, from Victorian grown Vegetables.

Walker (J. H.) & Son, 203, Bourke Street West, Melbourne.—Pickles made from Vegetables grown in Victoria. Sauces, specially prepared for export.

Zorn (Edward), Oakleigh.—Tomato Sauce ; Tomatoes, preserved in various ways.

Aitken (Thomas), Victoria-Parade, East Melbourne.—Ale, brewed from Malt ; Ale, XXXX ; Ale, bottled ; Porter, bottled.

Findlay and Son, Abinger Street, Richmond.—India Pale Ale, bottled ; Invalids' Ale, bottled.

Loan (Lewis), Walhalla, Gippsland.—Ale, Bitter, bottled, A and B. ; Ale, Light, bottled.

Melbourne Brewing and Malting Co., Ld., Carlton, Melbourne.—Ale, Pale, Bitter, brewed from Malt, Hops, and Sugar ; Porter, XXX, brewed from Malt and Hops ; Stock-Beer, brewed from Malt and Hops.

Kitz & Son, Selborne Chambers, Chancery-lane, Melbourne.—Cider, or Apple Wine, from Victorian Apples.

Australian Freehold Land and Produce Co., Ld.; Chateau Tahbilk Vineyard, Tahbilk, Lower Goulburn River, Victoria; Town Office, 85, Little Clolins Street East, Melbourne.—

Chablis; Pedro Ximenes; Reisling; Hock; Muscatel; Hermitage; Sauvignon; Carbinet; Claret 2 Samples.

Best (Henry), Vine-grower, Concongella, Great Western.—
Claret; Frontignac; Hermitage Hock; Sauvignon.

Best (Joseph), Vine-grower, Great Western.—Claret and Hock.

Bosisto (Joseph), M.P., J.P., President of the Royal Commisslon for Victoria.—Eucalyptus Liqueur, an aromatic and stomachic rarity, from the Victorian Eucalyptus Globulus.

Brache & Co., Wine Merchants; 112 Collins Street West, Melbourne.—

Carbinet; Hermitage, red; Her mitage, white; Reisling; Verdeilho; Reisling, character of Hock.

Brensing, (G.), Vine-grower, Grholnung, Goulbourne River. Hermitage, 1882, red.

Bruhn, (A.), Vine-grower, Emu Creek, Sandhurst.—

Verdeilho; Madeira; Chasselas; Reisling; Carbinet; Claret; Hermitage; Pedo Ximenes; Verdeihlo, full bodied.

Buchanan (C.), Vine-grower, Vine Bank, Ondit.—Carbinet, 1883, dry, full-bodied; Hermitage, 1883, white, dry, full-bodied.

Caldwell & Co., Wine Merchants Collins-Street West, Melbourne—Chablis; Claret; Constantia; Hermitage; Port; Reisling, 6 years old, Crown brand; Hock; Sherry.

Caughey (A. & R.), Vine-growers, Mount Pine, Murray River; Offices, Yarra Bank, Melbourne.—Claret; Hermitage; Hock; Muscatel; Mataro; Reisling; Pedro Ximenes; Port; Shiraz; Verdeilho.

Costelloe (P. H.), Vine-grower, Dunolly.—Hermitage.

Craike (Thomas), Vine-grower, Bowmont, Axe Creek, Sandhurst.—Dolcette; Hermitage, Nos. 1 and 2.

Daly (H. B.), Vine-grower, Dalysville, Donolly.—Hermitage; Pineau and Mataro varieties blended.

Davies (John), Vine-grower, Nagarveno, Moonee Ponds, Melbourne.—Claret; Hermitage; Hock, 1880-81.

DeCastella and Rowan, Vine-growers, St. Hubert's, County Evelyn; Office, Collins-street West, Melbourne.—Burgundy; Chasselas; Hermitage; Reisling; Sauvignon.

Eadie (John), Vine-grower, Ben Eadie, Sunbury.—Hemitage.

Fitzgerald and Newman, Wine Merchants, Castlemaine.—Verdeilho.

Fox (A. W.), Vine-grower, Emu Creek, Bendigo.—Carbinet; Hermitage; Verdeilho.

Fulton (Graham), Vine-grower, Echuca; Offices, 30 and 32, Collins-street East, Melbourne.—Reisling; Verdeilho.

Gemmell (John), Vine-grower, Fair Lawn, Wooragee, Beechworth—Shiraz; Muscatel.

Gianetti (Baptista), Vine-grower, Lombardy Vineyard, Bealiba.—Hermitage, red.

Grosse (Frederick), Vine-grower, Tooronga, Sandhurst.—Carbinet; Grenache; Hermitage; Malbec; Pedro Ximenes; Reisling; Tokay, Verdeilho.

Johnston (James Stewart), Vine-grower, Craigiee, Sunbury.—Hermitage; Hock; Verdeilho.

Jones (William), Vine-grower, Janesfield, Wedderburn.—Burgundy.

Kahland (Joachim), Vine-grower, King-street, Sandhurst.—Carbinet; Burgundy; Hermitage; Reisling; Verdeilho.

Kitz (Louis) and Son, Wine Merchants, Selborne Chambers, Chancery-lane, Melbourne.—Grenache; Hermitage; Hock; Muscatel; Pedro Ximenes; Reisling.

Kurrle (Robert), Vine-grower, Rosenthal, Sunbury.—Chasselas; Hermitage; Reisling.

Logan (Duncan), Wine Merchant Argyle-street, Rutherglen.—Aucarot; Carbinet; Reisling; Shiraz.

Mannes (Anthon), Vine-grower, Strathfieldsaye, Axe Creek, Sandhurst.—Chasselas; Dolcette; Hermitage; Verdeilho.

McBeen (Walter), Vine-grower, Marangan, Benalla.—Chasselas; Hermitage; Muscatel; Shiraz; Tokay.

Mellon (Francis), Vine-grower, Tivoli, Dunolly.—Hermitage, red; Muscatel; Reisling, Verdeilho.

Morris (G. F.), and Sons, Vine-growers, Fairfield, Brown's Plains, Murray River.—Carbinet; Muscatel; Pedro, white; Port; Reisling; Sherry, dry, pale; Shiraz; Verdeilho, pale.

Mueller (Augustus), Vine-grower, Yackandah.—Shiraz, 1878, full-bodied; Verdeilho, 1880, dry, white.

Pohl (Carl), Vine-grower, Emu Creek, Strathfieldsaye.—Carbinet; Hermitage; Reisling, Verdeilho.

Reau (Camille), Vine-grower, Tuileries, Sandy Creek, Wahgunyah.—Carbinet; Reisling.

Ritchie Brothers, Vine-growers, Murgheboluc, Geelong.—Hermitage.

Rutherglen and Murray District Vine-Growers' Association, Rutherglen: Fraser, Hugh, Olive Hill, Brown's Plains.—Verdeilho.

Hughes (William), Quandong, near Rutherglen.—Muscatel of Alexandra; Shiraz.

Graham Bros., Netherby Rutherglen.—Gouais, Reisling; Rousillon; Shiraz; Tokay.

Jack (Robert), Silverburn, near Rutherglen.—Reisling; Shiraz.

Smith (George S.), Vine-grower, All Saint's, Wahgunyah.—Carbinet; Chasselas; Hermitage; Pedro Ximenes; Malbec; Pedro Ximenes; Reisling.

Smith (J.) and Co., Vine-growers, Munaadda, Barnawartha.—Hermitage; Reisling.

Trimble (Robert), Mount Nebo Vineyard, Rutherglen.—Reisling.

Trinkaus (Albert), Vine-grower, Wintergarten, Muckleford.—Hermitage; Reisling.

Trouette and Blampied, Vine-growers, St. Peter's Vineyard, Great Western.—Hock; Reisling; Sauterne; Chablis; Hermitage (red); Claret; Burgundy.

Victorian Champagne Co., Ld.: Eastern Market, Melbourne.—Champagne, Creme deBouzy, and Perle d'Australie, made from Victorian Grapes.

Aitken (Thomas), Victoria Parade, East Melbourne—Rum; Whisky; Spirits of Wine, in cask.

Curtain (John), Australian Cognac Distillery, Falls Bridge, Yarra Bank, Melbourne.—Brandy, bottled, from Victorian Wine; Whisky, bottled, from Australian Malt; Geneva, bottled; Rum, bottled.

Fitzgerland and Newman, Castlemaine.—Geneva, bottled; Whisky, bottled.

Scotch Distillery Company, Bay-street, Sandridge, Melbourne.—Whisky, bottled, manufactured from Malt only.

Smith (George S.), All Saints' Vineyard, Wahgunyah.—Brandy, bottled, distilled by Exhibitor.

Trouette and Blampied, Vine-growers, St. Peter's Vineyard, Great Western.—Pale Brandy, distilled at the vineyard in 1880.

Greene (Samuel), and Co., Young and Moore Streets, Fitzroy, Melbourne.—Staughton Bitters; Orange Bitters; Quinine Bitters; Lemon Bitters; Hop Bitters; Tonic Wine; Peach Bitters; You'll Do Bitters; S. S. Bitters; Red Chincona Bark Bitters; Orange Gin; Milk Punch; Sq. Sarsaparilla; Ginger Brandy; Ginger Wine; Sarsaparilla Cordial; Limejuice Cordial; Limejuice; Raspberry Vinegar; Quinine Wine; Cloves; Peppermint; Black Currant Wine; Red Currant Wine.

Hopper (Thomas), Snake Valley, Carngham.—Milk-punch Liqueur.

Hop Bitters Manufacturing Co., 129 Spring-street, Melbourne.—Hop Bitters, made in Victoria.

McLean, (E.) and Sons, Bridgewater.—Cordials, various; Syrups, various.

Rowlands (E.), 116 and 118, Collins-street West, Melbourne: Factory, Ballarat.—Noyeau; Maraschino; Curacoa; Rhatang Bitters; Orange Bitters; Aromatic Bitters; Ginger Wine; Ginger Brandy; Pine Apple Syrup; Limejuice Syrup; Raspberry Vinegar; Lemon Syrup.

Schwerkolt (August), Nunawading, near Ringwood.—Cherry Wine.

Clifton Mineral Springs Co., Ld., Drysdale.—Mineral Waters; Seltzer Water; Soda Water; Magnesia and Iron Water; Clifton Water.

Loan (Lewis), Walhalla, Gippsland.—Soda Water; Seltzer Water; Lemonade; Ginger Ale; Fluid Magnesia.

Rowlands (E)., 116 and 118, Collins Street West, Melbourne.—Soda Water; Seltzer Water; Potass Water; Lithia Water; Magnesia Water; Apollinaris Water; Carlsbad Water; Tonic Water; Ginger Ale; Lemonade; Sarsaparilla; Ginger Beer: Ballan Seltzer; Vigorine.

Cain (Henry), 18, a'Beckett-street, Melbourne.—Pure Malt Vinegar.

Mellon (Francis), Dunolly.—Vinegar, made from Wine.

Trouette and Blampied, Vine-growers, St. Peter's Vineyard, Great Western.—Vinegar, White.

Heidelberg Cheese and Condensed Milk Co., Ld., Yarra Flats; Offices, 61, Flinders-street, West, Melbourne.—Condensed Milk.

Lewis and Whitty, 28 A, Flinders-lane, Melbourne.—Baking Powder; Egg Powder.

Melbourne Milk Supply Co., Ld., Romsey; 59, Queen-street, Melbourne.—Preserved Milk.

Section I.

AGRICULTURE AND HORTICULTURE.

(CLASSES 137 to 143.)

Collins (Samuel), Devon Farm, Bridgewater, London.—Wheat, Purple Straw variety.

Department of Agriculture.—Case containing samples of Agricultural Products, viz. :—

Wheat—Port McDonnel, Frampton, Purple Straw, Red Straw, White Tuscan, Rattlin Tom, White Lamas.

Oats—Short, Tartarian, Milling, Polish, Danish Tartarian, Canadian.

Barley—Battledore, Cape, English.

Rye; Buck Wheat; Maize; Field Pease; White, Dun; Millet; Linseed; Beet—Sugar, Silver.

Case containing samples of Productions from Experimental Farm, Dookie. viz :—Eight samples of Wheat,—Purple, Straw and White Lamas—grown four seasons in succession; Coriander Seed; Italian Rye Grass Seed; Canary Seed; American Broom Corn Seed; Almonds; Castor Oil Beans; Oilve Oil.

Geelong and Western District Agricultural and Horticultural Society, Geelong—Grain; Peas; Roots.

Harris (Alfred A.), Sutherland street, Clunes—Mangolds.

Minchin (Lewis), Ballyrogan,—Oats—Short, Sandy, or Milling..

Maxwell Daniel, Cohuna.—Wheat, grown on clay soil; Wheat grown on the Mallee scrub land,

McLeod (A. J.), Bairnsdale, Gippsland.—Hops, grown on the Mitchell River, Bairnsdale; Maize, in cob and shelled.

National Agricultural Society of Victoria, Bourke-street West, Melbourne.—Wheat.

Brunton (Thomas), Spencer-street.—Wheat (2 varieties).

Burston (S.), and Co., Maltsters, Melbourne Barley for Malting.

Derham and Co., Market-street.—Wheat; Oats; Barley; Pease.

Grant and Cameron, Bourke-street West.—Wheat, Purple Straw; Grass, Cocksfoot.

Henty (James) and Co., Little Collins-street West, Melbourne.—Hops, grown at Coranderk Aboriginal Station.

Latham (E.), Carlton.—Hops.

New Zealand Loan and Mercantile Agency Co., Ld., Collins-street West.—Wheat, for export

Nicholls (R. U.), and Co., 28, Armstrong-street, Ballarat.—Agricultural Seeds, 56 varieties; Flower-Seeds, 56 varieties; Tree and Shurb Seeds, 56 varieties; Vegelable Seeds, 56 varieties.

Polson (Angus), Marydale Farm, Moyston.—Wheat, Frampton; Oats, Tartarian Feed; Oats, Sandy, Milling; Rye, Barley, Cape.

Roberts (James F.), York Nursery, Union-street, Kew, Melbourne.—Group of Epiphytal Orchids.

Smith (George), 41, Armstrong street, Ballarat.—Grass Seeds, various; Grain, Pease.

Trimble (Robert), Rutherglen.—Wheat.

West Bourke Agricultural Society.—Potatoes.

Birney (Robert), Romsey.—Potatoes, Pink-eyed variety.

Campbell (Lachlan), Romsey.—Potatoes [2 varietes].

Conway (Patrick), Lancefield.—Barley, English; Pease, Dun; Potatoes.

Grant (William), Rochford.—Oats, Tartarian.

Lockwood (James), Lancefield.—Barley, English.

Morrison (James), Monegatta.—Chicory Root.

Wimmera District Agricultural and Pastoral Society, Dimboola.—Wheat (Prize), grown in the Wimmera district.

Horticultural Society of Victoria, Experimental Gardens, Survey Bark, Richmond.—Collection of Fruit.

Lang (James), Talbot Nursery, Harcourt.—Apples, fourteen varieties, namely:—Stone Pippin, Cleopatra, Newton Pippin, Lemon Pippin, French Crab, Gooseberry, Sturmer Pippin, Rymer, Stephenson's Winter, Hall, Munroe's Favourite, Dunn's Seedling, Donaldson's Seedling, Simmonds' Winter.

Mueller (Baron von), Government Botanist, Melbourne.—Album of some Australian Flowers not yet introduced into horticulture; Set of Dried Specimens of Plants of extensive utilitarian value.

Cockerell (Robert), 22, Elizabeth Street North, Melbourne.—Cockerell's Patent Cross Cultivators and Pulverisers.

Miller (Joseph), 123, Lonsdale Street West, Melbourne.—Aqueous, Oleaginous, Gelatinous, and Solid Preparations for the Preservation and Eraduation of Diseases in Vines, Fruit Trees, Shrubs, etc.

Smith (Robert), 25, Bouverie Street, Carlton, Melbourne.—Set of Diamond Metal Riddles, used for cleaning wheat in Winnowing Machines.

Flood (Frederick.), 139, Lonsdale Street West, Melbourne.—Water Lift, Flood's Improved; Water Lift, portions of; Tank, portable.

McEwan (James) and Co., Wholesale and Manufacturing Ironmongers, Elizabeth Street, Melbourne.—Bronze Fountain, 10 feet high, lent by the Firm to the Royal Commission for Victoria.

Section K.

ETHNOLOGY, ARCHÆOLOGY AND NATURAL HISTORY.

(CLASSES 144 to 149.)

Board for Protection of the Aborigines, Melbourne.—War Spears; Boomerangs; Woomeras; Spear Shields; Malkas; Waddies; Leangles.

National Museum of Victoria; Professor McCoy, F.R.S., Director, Melbourne.
COLLECTIONS OF NATURAL HISTORY. Case of mounted Specimens, Victorian Zoology.

Grœner (C. A.), Melbourne.—Collection of Victorian Fauna, viz:—1, Native Cat; 2, Water Rat; 3, Squirrel; 4, Native Bears; 5 Bat; 6 Platypus; 7, Eagle-hawk; 8, Snipe; 9, Mopoke; 10, Lyre-bird.

Specimens in Skins.—Mammal; Birds.

Collection of Victorian Edible Fish, in glass case, numbering about 50 different species;

Collection of Beetles, numbering about 150 different species;

Collection of Butterflies, numbering about 200 different species.

Leith (Thomas A. F.), Augustus Cottage, Martin Street, Albert Park, Melbourne.—Stuffed Birds, in case, being specimens of—1, Dotrel; 2, Quail; 3, Rail.

WESTERN AUSTRALIA.

Meyers (J.) and Co., Albany.—Pale Ale; Ginger Ale. Represented by Mr. J. B. Santiffaller, Tasmanian Court.

TASMANIA.

Section A.

FINE ARTS.

(CLASSES 1 to 6).

Andrews (Mrs. M. A.), 73, Liverpool St., Hobart.—Wax Models of fruit grown in Tasmania.

Anson Bros., Elizabeth St., Hobart.—Photographs.

Bank of Van Dieman's Land, St. John Street, Launceston.—Photograph of offices.

Boyd and Co, Elizabeth St., Launceston.—Photograph of Boot manufactory with employés.

Burrowes (W. H. Carl), Brisbane St., Launceston.—Oil paintings and Opal photographs.

Corbett (Thomas), Launceston.—Photograph of house and grounds.

Cornwall Insurance wo., St. John Street, Launceston.—Photograph of offices.

Evans (Maria Caroline), 45, Davey Street, Hobart.—Painted Table Top, in oils; Tasmanian Native flowers; Berries and Insects.

Evans (Maria Caroline), 45, Davey Street, Hobart,—Oil painting framed; Ben Lomond Mountain from the Buffalo-Plains.

Forrest (Capt. Haughton),—Oil painting.

Hallam (Emily Jane), O'Brien' Bridge.—Shade of Tasmanian Flowers; Handwork in Berlin wool.

Hadley (John Clay), Murray Street, Hobart.—Oil Painting by Captain Haughton Forrest, City of Hobart, capital of Tasmania, from the harbour. Mount Wellington in the background.

Koeppen (Mrs. Louise,) 15, Murray Street, Hobart.—Table top of Tasmanian Flowers and Ferns.

Koeppen (Mrs. Louise), 15, Murray Street, Hobart.—Painted Banner on satin (in oils), Arms of the city of Hobart.

Lloyd (J. Grant), Post Office Dunedin.—2 Water-color Paintings.
1. Dawn effect—Hobart from the new wharf.
2. Lake St. Clair, showing Mounts Olympus and Ida.

Lovell (Clara Helen), 96, Argyle Street, Hobart.—Painted Table Top, Tasmanian Native Flowers and Birds.

Montgomerie (Wm. Manners), 74, Liverpool Street, Hobart.—Photograph of premises.

McLaughlin (J.), aged 12 years, 121, Liverpool Street, Hobart.—Paintings on Wood, Tasmanian Wild flowers.

Nicholas (E. J.), Collins Street, Hobart.—Photographs in Mezzotint.

Osborne (J. Bishop), 76, Murray Street, Hobart.—Crystalograph Photographs, &c.

Pedder (Frederick), Superintendent of Police, Hobart.—Photograph of Policemen.

Postmaster General.—Collection of Postage Stamps of Van Dieman's Land and Tasmania from 1853 to date.

Paton (George), Patterson Street, Launceston.—Statuary, "Playing draughts at the Farm."

Reiley (Hon. Thomas).—Photograph of residence, "Entally."

Rus and Barnett, Photo Artists' 42, Macquarie Street, Hobart.—Collection of Photographs.

Salisbury (J. E.), Foundry, William Street, Launceston.—Photographs of Machinery.

Smith (Margaret), 106, Elizabeth Street, Hobart.—Very old Oil Painting, "A Russian General."

Strutt (Mrs. Jno. H.), 105, Bathurst Street, Hobart.—2 Crayon Picture—"Italian Flower Girl" and "German Street singers."

Stocks (Ernest D.), Victoria St., Ballarat.—Water-color painting, "City of Hobart from near the Kangaroo Bluff Battery."

Tapp (Clara), Oatlands—2 pieces of copied music—"Rocked in the Cradle of the Deep" and "Sharp Flat and Natural."

Wherrett and McGuffin, 81, Elizabeth Street, Hobart.—Photographs.

Government of Tasmania.—Collection of Photographs of Public Buildings, and places of interest, exhibited in stands made of Huon pine (Dacrydium Franklini) and Blackwood (Acacia melanoxylon.)

Section B.

EDUCATION AND APPLICATION OF LIBERAL ARTS.

(CLASSES 7 to 15.)

Aikenhead & Button, Patterson Street, Launceston.—Specimens of Printing, and files of the Launceston *Examiner* (daily), and *Tasmanian* (weekly) newspapers.

Brickhill (James), Patterson Street, Launceston—Files of the *Daily Telegraph* newspaper.

Davis (Joseph), Beaconsfield.—Sectional and ground plan of the Tasmania Gold Mining and Quartz Crushing Co.'s Mine, showing the workings to 31st June 1883.

Minister of Lands and Works (*Survey Department.*)—Maps of Tasmania, scale 5 miles to 1 inch, drawn by Leventhrope Hall.

Map of Tasmania, scale 7½ miles to 1 inch, drawn by E. P. N. Castray.

Schott (Herr J. A.), Professor of Music.—GRAND MARCH TRIOMPHALE SOUVENIR OF THE CALCUTTA EXHIBITION.

8 other musical compositions.

Walch (James) and Sons, Macquarie and Liverpool Streets, Hobart.—Book-binding.

Whittaker (W.), Latrobe.—File of the *Devon Herald* newspaper.

Specimens of work done by Pupils in Public Schools in Tasmania.

Section C.

HEALTH.

(*CLASSES 16 to 22.*)

Dally (D.) and Co., St. John Street, Launceston.—New Liver and Blood Mixture, prepared from a Tasmanian Indigenous Shrub.

Weaner and Co., Chemists, Elizabeth St., Hobart, Fluid Magnisia, 10 grains to the ounce.

Section D.

FURNITURE AND OTHER OBJECTS FOR THE USE OR DECORATION OF DWELL ING-HOUSES AND OTHER BUILDING.

(*CLASSES 23 to 37*).

Ballard (James), George Street, Launceston.—Collection of Baskets of Tasmanian Willows.

Bridges Brothers, Elizabeth Street, Hobart.—Collection of Ornamental Basketware. (The whole of the material used in the manufacture of these articles are cultivated and dressed by the firm.)

Camphell (John), Sandhill Pottery, Launceston.—Collection of Stone Utensils Pottery, Porcelain and Earthenware.

Carlsen (P. O.), Melville Street, Hobart.—Cruet Stand and Egg Stand made of Whale's Teeth, Bullock horn and Tasmanian fancy woods combined; Pipes, sticks, &c.

Chester (Miss Elizabeth Jane), St. John St., Launceston.—Cane work, from Tasmanian Trees.

Ditchan Brothers, St. John Street, Launceston.—Mantelpiece of Huon Pine and Blackwood.

Easther (Williams), Charles Street, Launceston.—The Lord's Prayer in Fretwork, cut out of Huon Pine.

Koeppen (Mrs. Louse), 15 Murray St., Hobart.—Cutting in Cork and Bead work.

Lloyd (Willam Joseph), Elizabeth Street, Hobart.—Chest of Drawers with Mirror and Jewel Cases, and drawers in polished Huon Pine, the work of an apprenticelad.

Newitt (Mary).—3 Pictures of Tasmanian Flowers on Tasmanian wood.

Paton (C. and J.), Brisbane St., Hobart.—Ceiling flowers, &c., of Plaster of Paris.

Santifaller (J. B.), Hobart.—Work of Art in wood carving.

Thompson (Richard B. Deas), Adelaide St., Launceston.—Collection of objects in Fretwork, done entirely by hand saw.

Wilmott (John), Liverpool St., Hobart.—2 Clocks in Fretwork.

Section E.

FABRICS, INCLUDING APPAREL, TOILET REQUISITES AND OTHER OBJECTS OF PERSONAL WEAR OR USE.

(CLASSES 38 to 52).

Andrews (Mrs. Mary Ann), 73, Liverpool St., Hobart.—Hand-made Pocket Handkerchief Honiton Lace.

Arascene work; sofa pillow, hand made.

Table Top in Spatterie Fern work.

Boyd and Co., Elizabeth Street, Launceston.—Collection of Boots, Shoes and Slippers.

Chester (Miss F M), St. John Street, Launceston.—Macrame nad Crewel work.

Chester (Mrs. Jane) St. John Street, Launceston.—Artistic Fancy work.

Clifford (Miss Helen), 198, Liverpool Street, Hobart.—Fancy work

Hack Frederick, New Norfolk —Knitted wool Carraige Rug, weight 4 lbs.

Hallam(Emily Jane), O'Brien's Bridge near Hobart.—Table and Whatnot Spatterie work, Tasmanian Ferns on Tasmanian wood.

Hatton and Laws, Chemists harles Street, Launceston.—Perfumery.

Johnston (Mrs. Ann), 90 Elizabeth St., Hobart.—1 Lady's Picnic or Garden Sun-shade.

1 child's ditto ditto.

Wool Flowers under shade.

Kidd (Jessie R.), George St., Launceston.—Fancy work.

Kœppen (Mrs. Louise), 15, Murray St., Hobart.—Specimens of Fancy work in Hair. Name in satin stitch in handkerchief.

Mathew (J. B.) & Sons, 93, Liverpool St., Hobart.—Hats, Caps, &c., manufactured on premises;

Miller (Andrew Paton), Liverpool and Murray St., Hobart.—Tasmanian Perfume distilled from Tasmanian Wild Flowers.

Newitt (Miss Harriet A.), Charles' St., Launceston.—Specimens of plain needlework.

Newitt (Miss Eliza S.), Charles St., Launceston.—Artistic fancy work.

Newitt (Miss Emily H.), 76, Murray St., Hobart.—Artistic Fancy Work.

Newitt (Miss Eliza S. M.), Sorell near Hobart.—Crochet work in wool.

Newitt (Miss Agnes E. C.), Sorell near Hobart.—Knitting in wool by hand.

Newitt (Mr. William), Sorell near Hobart.—Patchwork quilt.

Perkins and Nephew, Liverpool St., Hobart.—Large glass case of Ladies' and Childrens' apparel.

Ross, (James Cane), Latrobe.—Ornamental work.

Smith (Catherine Julia).—Fancy work, hand made: framed picture, native flowers.

Stanfield (Ada), Glenarchy near Hobart.—Ladies hand work, lace, Silk patch work quilt.

Stanfield (Myra), Glenarchy.—Macrame Lace work.

Stanfield (Nellie), Glenarchy.—Crewel smoking in Wool.

Stanfield (Lillie G.), Glenarchy —Macrame Lace work.

Webster (Mary), Elizabeth St. Hobart.—Fancy work

White (Miss Francis), Byron Street, Sandy Bay.—2 Satin Cushions; 2 Satin Aprons.

Williams (F. and J.), 73 Collin's Street, Hobart.—Boot and Shoe Uppers and Slippers.

Section F.

RAW PRODUCTS AND MANUFACTURES FROM PRODUCTS NOT INCLUDED IN OTHER SECTIONS.

(CLASSES 53 to 81.)

Archer (Charles), Verwood Ross.—Pure Merino wool; Skirted Fleeces.

Allcott (James) & Co., St. John Street, Launceston.—Tobacco and Cigars, grown and manufactured in Tasmania.

Abbott (Francis), Public Gardens, Hobart.—Seeds of indigenous Trees and Shrubs.

Bulman (Peter), Waverly Woollen Mills near Launceston.—Samples of Woollen Cloths.

Boyd & Co., Elizabeth Street, Launceston.—Colonial made Leather.

Ben Lomond Tin Mining Co., Fingal.—Minerals.

Bangor Slate Co., Pipers River.—Roofing Slates.

Barber (George), Latrobe.—Lead Ore from Mount Claude.

Bridges Bros Hobart.—Willows.

Belbia (William), Mayor of Hobart.—Specimens of Ornamental Woods.

Brookes (George), Latrobe.—Manufactured Tinware.

Cherry (Archibald W.), Latrobe—Lead Ore from Mount Claude.

Executive Commissioner for Tasmania.—Samples of building Stone.

Collection of Fancy Woods.

Cresswell (C. F.), Hobart.—Indigenous Seeds.

Clancy (George), Charles St., Launceston.—Willows.

Donnelly (W. J.), Collin's Street, Hobart.—Bark and Tanning materials; Ornamental woods.

Dally (John), Launceston.—Limestone.

Fryer (R. J.), New Wharf, Hobart.—Wool and Skins.

Fairlam (R. C.) Latrobe.—Slab of Red Myrtle.

Fisher and Facey, Hobart.—Timber and Railway Sleepers.

Gardner (Robert), Launceston.—Yola Bird Oil.

Gannon (John), Arver.—Minerals.

Gibson (W. N.), Fairfield.—Wool in Fleeces.

Gadsly (William), Latrobe.—Blackwood Timber.

Grubb Bros., Hobart.—Wattle Bark and Tannin.

Government of Tasmania.—Smelted Tin, constituting Tin Trophy.

Glover (Charles A.), Huon River.—Hone Stones. F. 74 Resin; and F. 54 Barks and Sewers.

Guesdon (Chas. A.), Collins St., Hobart.—Minerals.

Harcourt (James), Elizabeth St., Hobart.—Minerals.

Howard (Hawkes), Hobart.—Building stone.

Just (Major Q. C.), Hobart.—Collection of Minerals.

Jones (Robert), Riccarton.—Merino Wool in Fleeces.

Johnston (James), Elizabeth St., Hobart.—Saddles and Bridles.

Johnston Bros., Hobart.—Casks and Stones.

Jacobs (Samuel), Boat Wharf, Hobart.— Tasmanian Shells and Shell Necklaces.

Lord (C. J. C.), York Plains.—Coal.

Martin (J. D.), Elizabeth St., Hobart.—Shells and shell Necklaces.

Murray (William), Glenarchy.—Soap and Candles.

Mount Bischoff Tin Mining Co., Launceston.—Collection of Minerals and rocks, constituting base of Tin Trophy; also Large Nugget of Tin ore weighing 6 cwts., Assay 65 per cent.

Mechanics' Institute, Launceston.—Mineral Cabinet of Tasmanian woods, the contents exhibited by the Executive Commissioner, the Commissioner of Gold Fields, Tasmania, and Sundry Exhibitors.

Mace (Edward), Hobart.—Tin ore.

Nichols (S. A.), Launceston.—Ditto.

Oldham (H.), Latrobe.—Specimen of Silver Lead ore.

Purchase Company, Port Lemprere.—Iron ores, and associated minerals; Asbestos; Chromic Pig Iron.

Riddoch (Alex). M. H. A., Hobart.—Fossil Limestone from Bridgewater.

Smith (James), River Forth.—Specimen of Pine Timber; Mineral specimens.

Scott (James) M. H. A., Bohill, Launceston.—Indigenous Seeds; Petrified Tree root.

Shoobridge (E) w Sons, New Norfolk.—Hops.

Sternbery (Sim) & Co., Latrobe.—Specimens of wood, &c.

Santifaller (J. B.), Hobart.—Shells, and Shell Necklaces.

Viney (Robert), Evandale.—Wool, fleeces in grease,

Turner, Frith and Walker, Launceston.—Skins and Leather.

Webster (A. G.) and Sons, Hobart.—Wool, etc.

Walden(James), Launceston.—Zola and Seal oils.

Westwood (Charles), Collins Street, Hobart.—Mineral specimens.

Wantner (Henry Joseph), Collins Street, Hobart.—Samples of Tin stone

Section G.

MACHINERY AND IMPLEMENTS, MEANS OF TRANSPORT, APPLIANCES AND PROCESSES USED IN THE COMMON ARTS AND INDUSTRIES, INCLUDING MODELS AND DESIGNS.

(*CLASSES* 82 *to* 109.)

Brain (Thomas), Oatlands.—Halters made by a blind boy.

Dixon (R. C.) and Co, Launceston.—Portable Gas-making Machine.

Harvey and Co., Hobart.—Model of Buchan's Patent Gold amalgamator.

Rayser (F. W. H.), Waratah, Mount Bischoff—Model of ore crushing and dressing Machinery.

Woods (W.) Junior, (Apprentice 16 years of age), Brisbane Street, Launceston.—Inlaid desk; Tasmanian woods.

Section H.

FOOD PRODUCTS.

(*CLASSES* 110 *to* 136.)

Burgess (W. H.), Liverpool. Street, Hobart.—Jams manufactured by Hawkins and Co., River Huon.

Barnard Mackay and Co., St. John Street, Launceston.—Cheeses.

Burt (Mrs. R. R.), Hobart.—Apple Jelly.

Connolly (D. H.), George Street, Launceston.—French Brandy and Colonial Wine.

Daly (M. F.), Liverpoool Street' Hobart.—Hams; Bacn and Cheese; Butter.

Dossitor (D. H.), Hobart—Wheat and Flour.

Eady (C. G.), Liverpool Street, Hobart,—Dandelion Ale,

Fleming (Jno. Gidley), Liverpool Street, Hobart,—Fotted Butter.

Grove (Phillip), Huon River.—Apples.

Houghton (J.), Perth.—Fine Flour.

Horder (Georgel), Newstead.—Cider

River Don Trading Co.,—River Don.—Hams and Bacon

Joyce (John), Brisbane Street, Launceston.—Hams and Bacon

Ikin (William.,) Old Wharf, Hobart.—Apples

Kelly and Gordon, Hobart.—Cordails and Ærated waters

Tasmanian Preserving and Trading Company, (Limited), Glenorchy.—Preserved Rabbits

Marsden Bros., Collins St., Hobart,—Cordials,

Murray (William),—Glenorchy.—Vinegar,

McKenzie (Robert,) George Street, Launceston.—Stand of Cordials, Syrups and Ærated Waters.

Murray William.,—Glenorchy.—Cider.

Peak (H. and F.), Davey St., Hobart.—Jams and Jellies

Peart (George),—Charles St, Launceston.—Hams and Bacon.

Ritchie (David),—Launceston.—Flour and Oatmeal ; Split Peas.

Russell (R. D.), Liverpool St., Hobart.—James in glass and tin.

Sterns (Frederick), Charles St., Launceston—Seeds and grain ; Potatoes.

Sharpe, (Johnstone), Liverpool St., Hobart—Bacon and Hams.

Scott (Robert), River Forth.—Flour and Oatmeal.

Stewart (R. D.), Pardoe.—Cheese.

Turner (Henry), Hobart—Samples of Wheat and Flour.

Thompson (Mrs. John), Cormiston.—Native Bread (*Mylitta Australis*,) very rare.

Weaver and Co., Chemists, etc., Elizabeth St., Hobart.—Cordials and Syrups,

Watson (Josiah.), Providence Valley—Apples,

Section I.

AGRICULTURE AND HORTICULTURE.

CLASSES 137 to 143,

Anglo-Australian Guano Company.—Guano,

Section K.

ETHNOLOGY, ARCHÆOLOGY AND NATURAL HISTORY.

CLASSES 144 to 149.

Government of Tasmania.—Collection of Photographs—Fishes of Tasmania.

Paton (St. J.), Hobart.—Busts of the last Tasmanian Aboriginal King "Billy" (William Lanny) of Truccannia ; one of the last women ; and a Chief of the Oyster Bay tribe.

BRITISH GUIANA.

Section A.

(CLASSES 1 to 6)

WATER COLOUR VIEWS AND PHOTOGRAPHS OF THE INTERIOR OF BRITISH GUIANA.

Water Colour Views.

Drawn by J. G. SAWKINS and exhibited by EXHIBITION COMMITTEE.

1 Kaieteur Fall.
2 Piamah.
3 Pacarima Mountains. From Karinambo, Rupununi River.
4 Marcughi Falls. Maha-cuma.
5 Roraima.
6 Devils' Rock.
7 Malali Falls, Demerara River.
8 Bartica Grove, Essequibo River.
9 Pinara, Lake Amucu.
10 Paiwori, Essequibo River.
11 Amucu Mountains, Rupununi River.
12 Etrali Mountains, Rupununi River.

Photographs.

Exhibited by EXHIBITION COMMITTEE.

1 Immigrants' Quarter with Sugar Factory in distance—Pln. Leonora.
2 Sea Defences, Lugger with Granite —Pln Leonora.
3 Managers' Residence and adjoining Factory—Pln. Leonora.
4 The Sea Defences, placing facines for foundations—Pln. Leonora.
6 Fields of Cane two months old showing drilling—Pln. Leonora.
7 Inmer Lock System—Pln Leonora.
8 Outfall Sluice—Pln. Leonora.
9 Hospital—Pln. Uitvlugt,
10 Friestman's Dredger Digging a Canal—Pln. Uitvlugt.
10 Barges with Sugar passing a Draw Bridge—Pln. Uitvlugt.
11 Paying off the Week's Labour at Overseer's Quarters—Pln. Uitvlugt.
12 Manager's Residence and Factory, Tuschen de Vrienden.
13 Overseer's Quarters Laboratory and Hospital—Tuschen de Vrienden.
14 Locks and Drainage Sluices— Tuschen de Vrienden.
15 Medical Officers' Residence, Post Office and Telegraph Station— Tuschen de Vrienden.
16 Group of East Indian Coolies— Tuschen de Vrienden.
17 View of Field of Canes just planted from the back woods Tuschen de Vrienden.
18 Clearance of Forest with commencement of a Polder—Tuschen de Vrienden.
19 Commencement of West Coast Grand Canal in connection with Anna Catharina present Lock—Pln, Anna Catharina.
20 Canal made in connection with the Grand Canal—Pln, Anna Catharin
21 Manager's House—Pln, Met-en-Meerzorg.
22 Hospital—Pln. Met-en-Meerzorg.
23 School-House and Overseers' Quarters—Pln, Met-en-Meerzorg.
24 Factory, Pln, Met-en-Meerzorg.
25 Immigrants'—House, Pln, Met-en-Meerzorg.
26 Ditto —ditto.
27 Factory with Manager's House in view—Pln. Houston.
28 Ditto, Proprietor's—Pln, Houston.
29 Main view of Factory—Ditto.
30 Immigrant's Cottages—Ditto.
31 Entrance to the Coffee and Cocoa Estates—Pln, Noitgedacht.
32 Ditto

33 Cocoa-drying House and Nursery —Pln, Noitgedacht.
34 Among the four-year-old Cocoa, —Pln, Noitgedacht.
35 Four-year-old Liberia Coffee—Pln, Noitgedacht.

Views of George Town.

36 Entrance to the River Demerara —Pln, Noitgedacht.
37 Birds-eye View of George Town.
38 Sea Wall Looking West.
39 Baron Siccama's Dutch Dyke, showing the work in progress.
40 Immigration Depôt.
41 Best Groin from an Eastern point of view. Erected in 1878, to check the scour of the River to the West
42 Best Groin from Western point of view.
43 Album with Views.

Section C.

(CLASSES 16 to 22)

Chemical and Pharmaceutical Articles and Products.

1 3 Bottles Boeri-Ari Bitters.—Contributed by Exhibition Committee
2 3 Bottles Orange Bitters Contributed by Exhibition Committee.
3 3 Bottles Quassia Bitters.—Contributed by Exhibition Committee
6 Bottles Aromatic Bitters.—Contributed by C. F. Vieira.
5 1 Bottle Colony-made Bitter.—Contributed by Francisco DeAlmado
6 8 Bottles Universal Bitters.—Contributed by John Campbell.
7 1 Bottle Awarra Palm Oil.—Contributed by Exhibition Committee
8 1 Bottle Shark Oil.—Contributed by W Merriman.
9 1 Bottle Comb Fish Oil.—Contributed by W. Merriman. This oil is used by immigrants from India for anointing the skin and also for illuminating purposes, the name of the fish, from the liver of which the oil is extracted, is Pristis pectenatus.
10 3 Bottles Crab Nut Oil.—Contributed by John Campbell. The oil is obtained from the tree which yields Crabwood, it is used for burning, and is much esteemed as a hair oil; it is used in skin diseases of horses, cattle and dogs.
11 2 Bottles Cocoa Nut Oil.—Contributed by Pln. Fortitude.
12 1 Bottle Cocoa Nut Oil.—Contributed by Pln. Fortitude.
13 1 Bottle Laurel Oil.—Contributed by Exhibition Committee. This oil is extensively used by the Indians in affections of the joint and in rheumatism, and it is also a great solvent of India Rubber. The tree from which the oil flows is Oreodaphne Opifero, and it requires no purification after it exudesfrom the tree; great difficulty is experienced in obtainingit in large quantities.
14 Sample Cocoa Nut Oil Meal Cake.—Contributed by Plm. Fortitude
15 12 Pieces Gillbacker Glue.—Contributed by Exhibition Committee
16 8 Pieces Gillbacker Glue.—Contributed by W Merriman. The fishfrom which the glue is procured is Silurus Parkerli, the glue is very valuable, and is used in the manufacture of Isinglass
17 Sample of Snapper Glue.—Contributed by J. P. Murphy.
18 Sample of Balata Plaited—Contributed by Exhibition Committee
19 Ditto ditto in a ball.—Contributed by Ditto.
20 Locust Gum or Animi.—Contributed by G Couchman. The Gum is obtained from the Locust Tree (*Hymenœa Courbaril, Lin.*), and may be obtained in large qnantities in certain parts of the Coluny.
21 Balls of Touckong or Comaco-Bally Gum.—Contributed byExhibition Committee.

22 Gum Hyawa or Incense Gum.—Contributed by Exhibition Committee. This Gum is taken from the Hyawa or Incense Tree, and burns with a fragrant and pleasing odour

23 Two Samples of Caraman Gum or Buckwax.—Contrihuted by Exhibition Committee. This is taken from the Mani Tree, and is used by the Indians for fastening arrowheads to shafts ; it is also used as a substitute for Pitch.

24 1 Bottle Isinglass.—Contributed by W Merriman

25 1 Ditto Balsam Copaiba.—Contributed by Exhibition Committee

26 1 Sample Castor Oil Seeds.—Contributed by Exhibition Committee

Medicinal Barks.

Collected by JOHN BREMNER, Junior.

1 Warahia Bark. A decoction of this bark is used by the Indians for sore mouth.

2 Dally Bark A decoction of the bark should be taken early in the morning for sore throat.

3 Cacarwa Bark. A decoction of this bark is used as a purgative

4 Caracara Rope. A decoction of this rope is used for bathing ulcers.

5 Sereda Bark. This is used both as a febrifuge, and also as a purgative.

6 Oboody Bark. Used as an emetic.

7 Etekeboroo Bark. Used as an emetic

8 Cacarally Bark A decoction is used for bathing ulcers and sores.

9 Aresarroo, This bark, powdered and mixed with gunpowder, is a useful remedy for ringworm.

10 Cocoro. A decoction of this bark is used in cases of palpitation of the heart.

11 Hærehie Bark. A decoction of this bark is used as a gargle for sore throat.

12 Dacama Bark. Used as a purgative

13 Warracorie Bark. A decoction of the bark is used as a dressing for sores.

14 Semaropa Bark. Used in cases of bad diarrhœa.

15 Arracadacoo Bark.

16 Troisle Bark A decoction of this bark is used for washing sores.

17 Sarubaba A decoction of this bark is used as a febrifuge.

18 Caraba Bark A decoction of this bark is used for stoppage of the bowelr.

19 Yaruquara and Corehecoqoco Barks. Used conjointly for asthma.

20 Cowtabally Bark Used as a febrifuge.

21 Wallaba Bark, Used as a febrifuge and for toothache.

22 Kerecowa Bark. A decoction of this bark is used as an antidote to certain poisons.

23 Arewewa. Used as a purgative.

24 Worrally Bark. Used as a purgative

25 Toraey Bark. Used as a purgative

26 Outloo Bark. Used as a purgative

27 Semeri Bark.

28 Hiawa Bark. A decoction of the bark is used for curing coughs.

29 Aramata Bark. A poultice of this bark is used for Snake, Centipede and Spider bites.

30 Wimorshie Bark. Used as a febrifuge.

31 Horawasa Bark. A decoction of this bark is used as a hair restorer

32 Towianeroo Bark. Used in childbirth.

33 Souarie Bark. Used as a febrifuge.

34 Mora Bark. Used for dysentery

35 Morahada and Owunabana Barks.

36 Cacoryan Bark. Used a sa purgative.

37 Boesiari Rope.

38 Wauaradary Bark. Used for bathing sores.

39 Mani Bark. Used as a purgative. Collected by Edward Seon, on the Demerara River.

40 Moraballi Bark. Used as a fish poison and also as a dressing for sores.

41 Mora Bark. Used in cases of dysentery.

42 Locust Bark. Used in cases of dysentery.

43 Blood Wood Bark. Used in tanning.

44 Hyawa or Incense Tree.

45 Etawalli Bark.

46 Wallaba Bark. Used for toothache and also as a febrifuge.

47 Mess Apple Bark. Used in tanning.

48 Cashew Bark. Used as an astringent.

49 Simaruba Root. Used for dysentery,
50 Sereda Bark. A decoction of the bark is used for small-pox.
51 Wild Guava Bark. Used for dysentery.
52 Comacoballi Bark.
53 Dokamarballi Bark. Used in tanning.
54 Curuballi Bark. Used as an emetic
55 Aresoro
56 Bœri-Ari Rope.
57 Crabwood Bark.
58 Haiarri Root. Used as a fish poison
59 Coffeeballi Bark.
60 Marbie Bark. A decoction of this bark makes a refreshing drink, and a light febrifuge.
61 Bundle of Worm Weed. Exhibited by J. P. Murphy. The weed is very useful for destroying intestinal worms.

Section F.

(CLASSES 53 to 81)

Woods of British Guiana. Collected by **M. McTurk.**

Souari (Caryocar tomentosum ; Dec) From the Moraballi Creek, Essequebo River.
Determa, From the Moraballi Creek, Essequebo River.
Kabukalli From the Moraballi Creek, Essequebo River.
Tataboo From the Moraballi Creek, Essequebo River.
Mamoori-Balli From the Moraballi Creek, Essequebo River.
Pakoorie From Itoori-bisci Creek, Essequebo River.
Waibaima From the Moraballi Creek, Essequebo.
Kooroo-Balli, or Trysil From the Moraballi Creek, Essequebo River, where this tree grows plentifully.
Itikiboura-Balli, (Machaerium) From the Moraballi Creek, Essequebo River.
Seebadani From the Moraballi Creek, Essequebo River.
Wallaba, or Bimiti-Wallaba, (Eperua falcata Aubl) From the Moraballi Creek, Essequebo River.
Bartaballi, (Achras, mammosi, Boupl Sucuma, Bouplandri H B K) From the Moraballi Creek, Essequebo River.
Itoori Wallaba.
Tawaronero, or Bastard Bullet-Tree, (Humirium floribundum, Mart).
Bullet-tree, or Burueh, (Sapota Mulleri, Miq, or Mimusops, From the Moraballi Creek, Essequebo River.
Fukadie From the Moraballi Creek, Essequebo River.
Hooboodie, or Wild Cashew From the Moraballi Creek, Essequebo River.
Lallifer From the Moraballi Creek, Essequebo River.
Manniballi From the Moraballi Creek, Essequebo River.
Kauta-Balli From the Moraballi Creek, Essequebo River.
Wadaduri, or Monkey Pot (Lecythis grandiflora, Aubl) From the Moraballi Creek, Essequebo River
Wamara From the Moraballi Creek, Essequebo River.
Irriariadan From the Moraballi Creek, Essequebo River, where it grows plentifully on high sandy soil.
Dukuria From the Moraballi Creek, Essequebo River.
Dakama—balli From the Upper Essequebo River.
Greenheart, or Bibiru, (Nectandra Rodiaie. Schomb) From the Moraballi Creek, Essequebo River.
Eta-Balli From the Upper Essequebo River.
Wild Guava From the Upper Essequebo River.
Arrisouroo From the Upper Essequebo River, where it grows plentifully in low situations near the river.
Kamarakata From the Upper Essequebo River.

BENGAL SECRETARIAT LIBRARY

Dukala-Balli From the Moraballi Creek, Essequebo River.
Suradanni From the Moraballi Creek, Essequebo River.
Caraba, or Crabwood, white variety, (Carapa Guianensis, Aubl).
Foglekop From the Itoori-bisci Creek, Essequebo River.
Houboo-Balli From the Itoori-bisci Creek, Essequebo River, where the tree grows plentifully.
Simiri, or Locust, (Hymenoe) or barrel Lin. From the Itoori-bisci Creek, Essequebo River.
Hiawa-Balli, Omphalobium Lamberti, Dec. From the Itoori-bisci Creek, Essequebo River.
Siribidanni From the Itoori-bisci Creek, Essequobo River.
Simarpua, Simaruba officinalis, Dec) From the Itoori-bisci Creek, Essequebo River.
Kurahara, From the Itoori-bisci Creek, Essequebo River.
K'wanarri (Locust).
Duka From the Itoori-bisci Creek, Essequebo River.
Hackia (Siderodendron triflorum, Vahl).
Kumara, or Tonkin Bean, (Dipterix odorata Wild) From the Itoori-bisci Creek, Essequebo River.
Kuraroo, or Bat-seed From the Itoori-bisci Creek, Essequebo River.
Aramata From the Itoori-bisci Creek, Ersequebo River.
Caraba, or Crabwood, red variety (Carapa Guianesis, Aubl) See No 34.
Warikuri, Waracoori, or White Cedar From the Itoori-bisci Creek, Essequebo River.
Brown Cirouaballi, or Siruaballi From the lands of Mr William Thompson, Pln "Adventure,', Essequebo.
Oolu From the Itoori-bisci Creek, Essequebo River, where it grows plentifully in loose sandy soil.
Hiawa, (Icica heptaphylla, Aubl) From the Itoori-bisci Creek, Essequebo River.
Kurana, or Red Cedar, (Icica altissima, Aubl) From the Issorooro Creek, Upper Pomeroon River.
Waciba, Wasiba, or Bow-Wood From the Issorooro Creek, Upper Pomeroon River.
Mora, White variety, (Mora excelsa Benth), From the Issorooro Creek, Upper Pomeroon River.
Tibicusi, or Bastard Letter Wood From the Piraka Creek, Pomeroon River.
Buro-Koro, Burracurra, Paira, or Letter Wood, (Brosimum Aubletii Poep, Paratinera Guianensis, Aubl).
Keritie, or Kretti From the Aroua-Tiakroroo Creek, Pomeroon River.
Kooroboorelli, or Purple-Heart, (Copaifera pubiflora and Capaifera bracteata, Benth) From the Aroua-piakooroo Creek, Pomeroon River.
Yellow Cirouaballi, or Sirua-balli From the Aroua-piakooroo Creek, Pomeroon River.
Awati From the Aroua-piakooroo Creek, Pomeroon River.
Kakaralli, (Lecythis, Ollaria, Lin), From the Itoori-bisci Creek, Essequebo River.
Bukoorada From the Itoori-bisci Creek, Essequebo River.
Inglis (John), Euroballi, 3 pieces of Carved Wood.
Exhibition Committee, 100 Wallaba Shingles.
Exhibition Committee, 100 Wallaba 2 Vat Staves dressed.
Exhibition Committee, 100 Wallaba 2 Vat Staves undressed.
Exhibition Committee, 100 Wallaba 2 Paling Staves dressed.
Exhibition Committee, 100 Wallaba 2 Paling Staves undressed.

Fibres. Contributed by Exhibition Committee.

1 Silk Grass (Bomelia Karatas)—This fibre is very strong and from it the best hammocks are made, it is also used by Indians for bow strings, nets, fishing lines, ropes, &c.
2 Tibisiri Fibre—Is obtained from the inner surface of the leaves of the Ita Palm, and is used by the Indians for making hammocks, etc It is very durable except in damp situations It can be obtained in great quantities
3 Jumby Ochro Fibre—Used for making lines and ropes

4 Mahoe Fibre—Strong ropes for drawing timber are made by the woodcutters from this fibre, a small plaited rope made by an Indian will be found in the Ethnological Collection
5 Ditto
6 White Cacarrallx or Hanaw Fibre —This very beautiful fibre is only used for surrounding the cigarettes of the Indians; it could clearly be made of great service in many ways
7 Brown Cacarrally Fibre
8 Queache Fibre
9 Koolekooako Fibre
10 Yahoo Fibre
11 Koomaka Cotton—Collected by A C Stenson
12 Silk Cotton—Collected by A C Stenson
13 Cocoanut Fibre for Brushes Pln. Fortitude
14 Ditto ditto
15 Ditto ditto

Section H.

(CLASSES 110 to 136.)

Saccharine products and articles of food.

Sugar.

	Contributed by Plantation
Sugar, white	... Cane Grove
Ditto, yellow	... Ditto
Ditto, Demerara refining crystals	... Leonora
Ditto, white	... Chateau Margot
Ditto, yellow	... Ditto
Ditto, white	... Farm
Ditto, yellow	... Ditto
Ditto, non-chemical	... Enterprise
Ditto, ditto	.. ditto
Ditto, dark crystals	... Ditto
Ditto, 1st quality	... Tuschen de Vrienden
Ditto, 2nd quality	... Ditto
Ditto, 3rd quality	... Ditto
Ditto, muscovado	... Hamburg
Ditto, white	... L'Union
Ditto, yellow	... Ditto
Ditto, fine grain	... Taymouth Manor
Ditto, shipping	... Ditto
Ditto, shipping slightly washed	... Ditto
Ditto,	... Versailles
Ditto, white	... Cornelia Ida
Ditto, yellow	... Ditto
Ditto, grocery crystals	Peter's Hall
Ditto, yellow grocery crystals	Windsor Forest
Ditto, refining crystals	Mara
Sugar, refining crystals	Hampton Court
Sugar, refining crystale	Hampton Court
Ditto, ditto	... Mara
Ditto, yellow	... Houston
Ditto, white	... Met-en-Meer zorg
Ditto, yellow	... Ditto
Ditto, white	... Reliance
Ditto, slightly yellow	Ditto
Ditto, yellow	... Ditto
Six Sugar canes grown at	Tuschen de Vrienden

Rum.

Rum, white	... Chateau Margot
Ditto, ditto	... La Bonne Intention
Ditto, ditto	... Cane Grove
Ditto, ditto	... Leonora
Ditto, ditto	... Ditto
Ditto, ditto	... Farm
Ditto, ditto	... Belle Plaine
Ditto, ditto	... Enterprise
Ditto, ditto	... Taymouth Manor
Ditto, ditto	... Cornelia Ida
Ditto, ditto	... Reliance
Ditto, coloured	... La Bonne Intention
Ditto, ditto	... Cane Grove
Ditto, ditto	... Chateau Margot
Ditto, ditto	... Met-en-Meerzorg

Rum. Whisky colour... Leonora
Ditto, Cognac ditto ... Ditto
Ditto, Shipping colour Ditto
Ditto, coloured ... Enterprise
Ditto, ditto ... Belle Plaine
Ditto, ditto ... Farm
Ditto, ditto ... Tuschen de Vrienden
Ditto, coloured ... Taymouth Manor
Ditto, ditto ... Cornelia Ida
Ditto, ditto ... Reliance
Ditto, ditto ... Ditto

Starches, Farines, Coffee, Cocoa, Rice, &c.

1 Bottle Arrowroot Starch ... Contributed by Exhibition Committee
1 ditto Sweet Potato Strach ... Ditto
1 ditto Buck Yam Starch ... Ditto
4 ditto Sweet Cassava Starch ... Ditto
2 ditto Bitter Cassava Starch ... Ditto
1 ditto Common Yam Starch ... Ditto
1 ditto Tannia Starch Ditto
1 ditto Guinea Yam Starch ... Ditto
1 ditto Sweet Cassava Flour Starch ... Ditto
1 ditto Tannia Flour Starch ... Ditto
1 ditto Conquintay or Plantain Meal ... Ditto
Cassava Sliced and Dried ... Ditto
1 Bottle Cassava Strach Mrs Carruthers
1 ditto Breadfruit flour ... Ditto
1 ditto Arrowroot Starch Ditto
1 ditto Conquintay or Plantain Meal ... Ditto
1 ditto Bitter Cassava Flour ... J P Murphy
1 ditto Conquintay or Plantain Mill ... Ditto
1 ditto Arrowroot Starch ... W Merriman
1 ditto Bitter Cassava Starch ... Ditto
1 ditto Cassava flour ... A C Stenson
Cassava bread ... Exhibition Committee
6 Bottles Cassareep ... Ditto
Cassareep is the inspissated juice extracted from the roots of the Bitter Cassava. It is mainly used in this Colony in the preparation of Pepper Pot.
Farine ... Contributed by Exhibition Committee
Plantain Sliced and Dried .. Ditto
1 Sample Coffee ... Ditto
1 ditto ditto ... J P Murphy
1 ditto ditto ... M Garnett
1 Sample Cocoa ... Pln Houston
1 ditto ditto ... M Garnett
1 ditto ditto ... W Smith
1 ditto ditto ... J P Murphy
1 Sample Rice Cleaned Pln Hamburg
1 ditto ditto ditto Mrs Carruthers
1 ditto ditto In Straw ... Ditto
1 ditto Ditto ... J P Murphy
1 ditto Ditto ... Pln Anna Regina
1 ditto Chinese Rice Exhibition Committee
1 ditto Chinese Glutinous Rice ... Ditto
1 ditto Creole Corn ... Ditto
1 ditto Indian Corn .. Ditto
1 ditto Pigeon Peas ... Ditto
1 ditto Eschalots ... Ditto
1 ditto Wangala ... Contributed by Exhibition Committee
This seed is used in the manufacture of cakes
1 ditto Souarie Nuts ... Ditto
1 ditto Tonka Beans ... Ditto
1 ditto Chinese Fruit (Mardhye) ... Ditto
1 ditto dried Cocoanuts ... Ditto

Preserved Fruits, Pickles, &c.

2 Bottles Guava Marmalade ... Exhibition Committee
4 Bottles Guava Jelly Ditto
2 ditto Preserved Mammee Apple ... Ditto

2 Bottles Preserved Pine-apple ... Exhibition Committee
4 ditto ditto Limes ... Ditto
2 ditto ditto Orange ... ... Ditto
2 ditto ditto Golden apple ... Ditto
2 ditto ditto Tamarinds ... Ditto
2 ditto ditto Mango Ditto
2 ditto ditto Seville Orange Ditto
2 ditto ditto Cherry Ditto
2 ditto ditto Papaw Ditto
2 ditto Guava Jellie A C Stenson
1 ditto Stewed Guava Ditto
1 ditto ditto Gooseberry Ditto

1 Botles Stewed Pine-apple ... A C Stenson
1 ditto Sorrel Jelly ... Ditto
4 ditto Pickles ... Exhition Committee
2 ditto Hot Sauce ... Ditto
6 ditto Cayenne Pepper ... Ditto
1 ditto Guinea Pepper Ditto
This pepper, pounded and mixed with water, is used by the Indians for dysentery.
1 Sample Dried Peppers Ditto
1 Bottle Dried Peppers Hon B H Jones
2 Bottles Pickles ... I P Murphy
2 ditto ditto ... Mrs. Carruthers
6 ditto ditto ... A C Stenson

Section K.

(CLASSES 144 to 149.)

Ethnological Specimens.

Cotton Hammock, made by Indians
Ditto ditto ditto
Tibisiri Hammock, made by Indians
Small Tibisiri Hammock, made by Indians
Tibisiri Hammock with Cotton Cross-bars
Small Hammock used by Indian Women for carrying children
Three pairs of Hammock Ropes, made from Silk Grass
Balls of Cotton, prepared by Indians
Cotton Wound Round Reels, prepared for making Hammocks
Queyus, Indian Bead Ornaments
Ditto ditto ditto
Ditto ditto ditto
These are often the only dress of Indian Women, and in their elaboration frequently display considerable taste
Indian Crowns, made from Parrot and Macaw Feathers
Ditto ditto ditto
Ditto ditto ditto
Necklace made of the Teeth of Peccary (Dicotelys torquatus)
Ditto made of Seed Pods
Ditto made of Greenheart Seeds
Annato, used by Indians to paint their bodies
Two Matapies
Sifters Used for, for sifting Cassava meal and holding Cassava bread
Indian Trays, made from the Ita Palm for putting food on
Indian Porterage Basket with slide to fit inside, made of Pegall work
Indian Pegall
Ditto
Ditto
Indian Goglet, Painted
Ditto
Small Indian Goglet.
Ditto.
Indian Pot with cover.
Ditto.
Small Indian Pot.
Ditto.
Ditto.
Gourd used by Indians for carrying small things.
Ditto.
Letter wood bow, with complete set of Arrows.
Ditto.
Ordinary Bow, with complete set of Arrows.
Ditto.

Bundle or Shafts for making Arrows.
Wax on Stick for fixing Arrow heads to shaft. This is the Caraman or Buck Wax, a large sample of which is shown in another section.
Indian Blowpipe This Indian Blowpipe consists of an inner and outer tube, the outer one being simply to protect the straight smooth tube inside from injury.
Arrows for Blowpipe, tipped with Ourali poison. These arrows are inserted into the end of the blowpipe, a small plug of cotton being put on their end, aim is then taken and the arrow projected by a sudden breath. The Ourali poison on the arrows has the effect of speedily paralysing any living object struck.
Indian Club.
Small Toy Club, made by Indians.
Indian Bag, made of Jaguar skin.
Model Corial or dug out, with four paddles and fittings. Corials of this description are most extensively used by Indians. They are hollowed out from the trunk of a single tree and are often of great size. Silverballi is the favourite wood for making Corials from.
Two Indian paddles.
Large Steering Indian Paddle, with round blade.
Set of Indian fans.
Shaak-Shaak or Rattle. These are used by Indians during dances.
Seed Rattle Strung on a Cotton Thong.
Ditto.
Indian Drum.
Indian Tassells made from Birds strung through the beak.
Four Samples of Tobacco grown and prepared by Indians.
Rope of Mahoe Fibre, made by an Indian.

MISCELLANEOUS ARTICLES.

Fressow (W).—Three Ornamental Paddles.

Exhibition Committee.—Forty-two Painted Calabashe.

Exhibition Committee.—Sixteen Walking Sticks.

Exhibition Committee.—Three Coolie Pipes.

Exhibition Committee.—Sixteen Cocoanut Dippers.

Tust (D. Sarah)—Cuffum Scales.

THE GILT OBLISK in the centre of the Court represents the amount in SOLID GOLD of money brought back from Demerara by Indian Emigrants to that Colony. Its weight in gold would be 2,30,538 Tolas, and its value Rs. 41,49,685.

MAURITIUS

Section B.

(*CLASSES 7 to 15.*)

Ashley (W.), Superintendent of Government Schools.—Reports of Department from 1878 to 1882.

Baissac (C.)—Etude sur le patois Créole.

Descubes (Mr.).—Map of the Island of Mauritius.

Messervy (A.), Rector of the Royal College.—Calendars, 1881-82 and 1882-83.

Section F.

(*CLASSES 53 to 81.*)

Chazal (Mr. T. de)—Sample of Silk, year 1818.

Chazal Moon (Madame de).—Sample of Silk, year 1850.

Descroizilles (Madame).—Sample of Silk, year 1870.

Horne (T.), F. L. S., Director of the Botanical Gardens.—34 Sections of Colonial woods.

Magasin General des Huiles.—Cocoanut Oil.

Horne (T.), Director, Botanical Gardens.—Collection of Fibres.

1 Acanthophoenix crinata. Wend., Palmæ.
2 Acromia Sclerocarpa, Mart., Palmæ.
3 Agave Angustifolia, Hano, Liliaceæ.
4 ,, Mexicana Hano, do.
5 Alocasia macrorhiza, Shott., Arodiæ.
7 Aloe variegata, Liliaceæ.
8 Alpininea calcarata, Rox. Zingiberaceæ.
9 Alpininea magnifica, Rox., Zingiberaceæ.
10 Ananassa sativa, Lind., Bromeliaceæ.
11 Areca catechu, Linn., Palmæ.
12 ,, lutescens, Bory, do.
13 ,, Madascariensis, Stadt, do.
14 ,, Sapida do. do.
15 Arenga sp.
16 Artocarpus incisa, Linn., Moreæ.
17 ,, integrifolia, Linn., do.
18 Astrapœa Willichii, D. C., Byttneraceæ.
19 Bactris flavrispina, Palmæ.
20 Bauhinia acuminata, Fabaceæ.
21 ,, Malabarica, do.
22 ,, Richardsonii, do.
23 Barringtonia speciosa, Linn., Barringtoniaceæ.
24 Berrya Hamonilla, Roxb., Zilliaceæ.
25 Bonapartea Juncea R. & P., Bronzeliaceæ.
26 Borassus sp., Palmæ.
27 Butea superba, Roxb., Fabaicæ.
28 Calamus Roxburgii, palmæ.
29 Carludovica palmata, Pandanaceæ.
30 Caryota Rumphiana, Palmæ.
31 ,, sp., do.
32 ,, urens, Linn., do.
33 Cocos flexuosa, Mars., do.
34 ,, nucifera, Linn., do.
35 Colocasia antiquorum, do.
36 Cordia myxa, Linn., Cordiaceæ.
37 Corypha Australis, R. Br., Palmæ.
38 ,, umbraculifera, do.
39 Cyperus polystachus, Rotth., Cyperaceæ.
40 Deckenia nobilis, Wendl., Palmæ.
41 Dutyosperma alba, do. do.
42 ,, rubra, do. do.
43 Dombeya acutangula, Cav., Bytneriaceæ.
44 Dombeya umbellata do. do.
45 Dracuna Brasiliensis, Liliaceæ.
46 ,, Mauritiana, Lamk.. do.
47 Dypsis sp., Palmæ.
6 Elais Guinensis, Jacq., do.

48 Ficus elastica, Roxb., Moreæ.
49 ,, Mangifera, do.
50 ,, Mauritiana, Lamk., do.
51 Ficus sp., do.
52 ,, religiosa, Linn., do.
53 ,, rubra, Wall,, do.
54 ,, salicifolia, do.
55 ,, sp., do.
56 ,, sp., do.
57 Fourcroya gigantea, Vent., Liliaceæ.
58 Guazuma tomentosa, H. B. K., Sterculiaceæ.
59 Heliconia sanguinea, Musaceæ.
60 Hibiscus mutabilis, Linn., Malvaceæ.
61 ,, sp. do.
62 Hyophorbe amaricaulis, Palmæ.
63 ,, Verschaffeltii, do.
64 Hyphæne Schatan, Bojer., do.
65 Hentia Wendelliana, do.
66 Latania Loddigesii, do.
67 ,, Mauritiana, do.
68 ,, Verschaffeltii, do
69 Lienola horrida, do
70 Livistonia altissima do.
71 ,, Hoogendorpii, do.
72 ,, humilis, R. Brown, do.
73 ,, Mauritiana, Wal., do.
74 Lodoicea Sechellarum, Labil., do.
75 Malvaviscus arboreus, Cav., Malvaceæ.
76 Morus Alba, Linn.
77 Musa Chinensis, Musaceæ.
78 ,, Coccinea, do.
79 ,, Gengeli, do.
80 ,, (Matelot), do.
81 ,, sp. do.
82 ,, sp. do.
83 ,, textilis, do.
84 ,, violacea, do.
85 Sophrosperma Van Houteana, Balf. fil., Palmæ.
86 oreodoxa Oleracea, Palmæ.
87 ,, regia, do.
88 ,, Elais, do.
89 Phœnix dactylifera, Linn., Palmæ.
90 ,, Olfersii, do.
91 ,, rupicola do.
92 Pterospermum acerifolium Wild, Bytterniaceæ.
93 Rapolocarpus lucidus, Bojer., Tilliaceæ.
94 Ravinala Madascariensis, Sonn., Musaceæ.
95 Ridelia tiliaefolia D. C., Byttneriaceæ.
96 Sabal Adansoni, Guerus, Palmæ.
97 ,, sp. do.
98 ,, umbraculifera, do.
99 Sagus ruffia, Jacq., do.
100 Sanseviera Cylindrica, Bojes., Liliaceæ.
101 Sanseviera latioflia, liliaceæ.
102 ,, Zeylanica, Wild, do.
105 Sapindus emarginatus, Wahl., Coxsignya.
106 Seaforthia elegans, R. Brown, Palmæ.
107 Sida carpinæfolia, Linn. pil., Malvaceæ.
108 ,, glutinosa, Cav., Malvaceæ.
109 Sterculia balangas, D. C., Sterculiaceæ.
110 Stevensonia grandifolia, Duncan, Palmæ.
111 Strelizia Angusta, Thun., Musaceæ.
112 Theobroma Cacao, Linn., Byttneriaceæ.
113
114 Verschaffelti splendida, Wendl., Palmæ.
Wikstromia vividiflora, Meissn., Thymelaceæ.
116 Yucca aloifolia, Linn., Liliaceæ.
117 ,, filamentosa, Dinn., do.
118 ,, gloriosa, Linn., do.
119 ,, variegata ,, do.

Mont Choisy Hemp Estate Co.—Pamplemousses; Aloe fibre.

E. Brunand and Séneque Mahebourg.—Slaked Lime; Caustic Lime (for sugar making).

Joseph (L.)—24 bottles Snuff.

Ferme Modele de Chebel; E. Lienard, Esq., Petite Riviere—Ostrich feathers.

Section H.

(*CLASSES* 110 *to* 136.)

Drury.—Wines.

Exhibition Committee.—Creole Coffee.

Sugar.—Samples from the following estates—
"BELLE VUE," Flacq. Mrs Widow Allendy & F. Lecourt de Billot.

1 Vesou Sugar.
2 1st Syrup ,,
3 2nd Syrup ,,
"MON DESERT," Grand Port. T. Thierry Esq.—
4 Vesou, best white crytallized.
COMPAGNIE SUCRIERE DE MON DESERT, Moka.—
5 Extra large white crystals.
"UNION & BEL AIR," SUGAR ESTATE Co., Savanne.—
6 Vesou.
7 Syrup.
"TERRACINE," SAVANNE, Messrs. Cassaignes & Co.—
8 Vesou.
9 1st Syrup.
"UNION," Flacq, Mrs. Widow Bourgault de Condray.—
10 Vesou.
11 1st Syrup.
12 2nd Syrup.
"BELLE ROSE," FLACQ, V. Boulle & Co.—
13 Vesou.
14 1st Syrup.
15 2nd Syrup.
"ST. JULIEN" CENTRAL SUGAR ESTATE Co., Flacq.—
16 Extra large, 1st clear crystals.
"SAVANNAH," Savanne. Mrs. Widow Jamin.—
17 Brewers' Crystals.
"QUEEN VICTORIA," Messrs. Desveaux de Marigny.—
18 Vesou.
19 1st Syrup.
20 2nd Syrup.
"COMBO," Savanne. Highlands Sugar Estate Co.—
21 Extra large crystals.
22 Medium crystals.
"LA FLORA," Savanne. M. Sauzier, Esq.—
23 Medium crystals.
"BON ACAUEIL," Flacq. Mrs. Bozer de la Giroday.—
24 Vesou.
"HIGHLANDS," Plaines Wilhems. Highlands Sugar Estate Co.
25 Extra large white crystals.
26 Large white crystals.
27 Large crystals.
28 Extra white.
29 Extra white crystallized.
30 Finest crystallized yellow.
"DEEP RIVER," Flacq. L. Mazery & Co.—
31 Vesou.
32 1st Syrup.
"RICH FUND," Flacq. Arnaud & Co.—
33 Vesou.
34 1st Syrup.
"BOIS CHERI" Savanne, Messrs. G. Guibert, Delafaye, and Co.
35 Vesou.
36 1st Syrup.
"MAISON BLANCHE," Pamplemousses Sugar Estate.
37 Finest Crystalized Vellow.
"RICHE BOIS," Savanne. Mauritius Sugar Estate Co.
38 Vesou.
39 1st Syrup.
40 2nd Syrup.
"ETOILE," Flacq.
41 Vesou ;
42 1st Syrup.
43 2nd Syrup.
"ROSALIE," Pamplemouses, Mauritius Sugar Estate Co.
44 Vesou.
45 1st Syrup.
46 2nd Syrup.

Mrs. Widow Pipon, La Chaumière, Savanne.-Arrowroot powder.

Martial (F.).—3 Bottles Eau de vie de Bibasse ; 3 bottles Liqueur. Cacao ; 2 bottles Noyau Bibasse ; 2 bottles Noyau Orange.

Dumontes (Mon.),Grand Port.—Créole Rice.

Watson (James), Sparkling Lemonade.

Baissac Pochard & Co.—12 bottles Lemonade.

Joly & Co.—2 Cases Vanilla pods.

Bandon (A.,) and Co., Varsailles, Riche Terre.—A case of Vanilla Pods.

Langlois (Joseph), Seychelles.—Vanilla Pods.

Emmerez, (N. D.) Grand Don jon.—1 Case Cloves.

Montille (Mr de), Savanne.—Cinnamon.

Section I.

(*CLASSES* 137 *to* 143.)

Royal Society of Arts and Sciences.—3 Cocos de Mer Lodvicea. Sechellarum.

Pelte (Miss).—Collection seeds of forest plants.

AUSTRIA.

Section A.

(CLASSES 1 to 6.)

Schnell (J.) & Son, Vienna.—Oil Paintings.

See Picture Gallery.

Section B.

(CLASSES 7 to 15.)

Rollinger (F.), Vienna.—Account Books; Stationery; Book-Binding.

Section C.

(CLASSES 16 to 22.)

Faber Fratelli, Trieste.—Insecticide.

Section D.

(CLASSES 23 to 37.)

Geylings (Carl), Erben, Vienna.—Painted and Stained Glass.

Kohn (Jacob and Joseph), Teschen.—Bent Wood Furniture.

Meltzer (Karl) and Co., Langenau.—Glassware.

Neher (Emil), Villach.—Tinned enamelled Ware.

Richter (Gust. A.), Wansdorf.—Flowers; Porcelain.

Thonet Bros., Vienna.—Bent Wood Furniture.

Silbiger and Co., Doebling, Vienna.—A Marble Dais.

In the Quadrangle of the Museum, immediately opposite the entrance, will be seen the beautiful MARBLE DAIS erected by Mr. A. Silbiger, on which H. E. the VICEROY and H. R. H. the DUKE of CONNAUGHT and Suite performed the ceremony of opening the Calcutta International Exhibition, on 4th December 1883.

The Dais is made of solid, richly and variously coloured and inlaid Marble, in the style, and of superior workmanship, to that of the celebrated Taj at Agra. Such large pieces of beautifully Coloured Marble have never before been shown in India; one of the pieces being 14 feet 8 inches in length by 5 feet in width. The whole is a removeable structure, and can be used to form an entrance to a palace, or dais in the Durbar Hall. Columns and pillars of Coloured Marble of any height can be contracted for.

Agents in India: Walsh Lovett and Co, Calcutta.

Section E.

(CLASSES 38 to 52.)

Frank (Josef), Rossbach, Bohemia.—Cotton and Woollen Shawls.

Muneh (Adolf) and Son, Vienna.—Oriental Fabrics.

Section F.

(CLASSES 53 to 81.)

Ellissen, Roeder & Co., Vienna Paper Mills, Vienna.—Paper.

Section G.

(CLASSES 82 to 109.)

Weitzer (Joh.), Graz.—Carriages; Phæton; Landauer.

Krainische Industrie Gesellschaft, Laibach.—Carintian Steel; Files; Rasps.

Section H.

(CLASSES 110 to 136.)

Hirschler (Moritz), Budapest.—Mineral Water.

Kahl and Co., Krondorf near Carlsbad.—Mineral Water.

Kleinoscheg Brothers, Graz.—Sparkling and Still Wines.

Luxardo (Gurolamo), Zara.—Maraschino Liquor.

Matkovic' (Giov. qm. A.), Knin.—Maraschino and other Liquors and Cordials.

Stampalia (T.), Zara.—Maraschino Liquor.

Ulbrich (Anton), Pullna, Bohemia.—Mineral Water.

Agents: Balmer Lawrie and Co., Calcutta.

Vlahov (Romano), Sebenico.—Bitters; Tonic.

Von Nadosy (Koloman), Stz. Lorincz.—Hungarian Wine.

Section I.

(CLASSES 137 to 143.)

Ganz & Co., Budapest.—1 large Crushing Flour Mill, 1 small Crushing Flour Mll, low Grinding Mills.

BELGIUM.

Section D.

(CLASSES 23 to 37.)

Bragard (W.), Brussels.—Marble Mantle pieces. Agents: F. Acerboni & Co., Calcutta.

Cobbaert & Fils, Grammont.—Matches of all kinds.

Omnozerz (F.), 9 rue Maling, Brussels.—Marble Clocks, and Ornaments.

Staes Sprochants & Co., Levamonde.—Watches.

Tremouroux (N. & T.), St. Gilles, Brussels.—Enamelled wrought-iron Kitchen Utensils and other metal goods.

De Looper Monnoyer & Co., Turnet.—Window Glass.

Section E.

(CLASSES 38 to 52.)

Association de Verviers, Verviers.—Drapery, tweeds, flannels.

Societe Anonyme of Lotts.—Merinos and Zanelhas.

Vandewynekele (Chs.), Ghent.—Linnen, Cotton, and Jute Thread.

Wild and Freres, Ghent.—Blankets.

Section F.

(CLASSES 53 to 81.)

Delmotte (Benoit), Maria Kerke lez Gand.—White Lead, dry.

De Smet (Leon), Boulevard du Bequinade, Ghent.—Ornamental Tiles. Agents: Balmer Lawrie & Co., Calcutta.

De Maux, (Jean) Antwerp.—Cigars.

Koch and Reis, Antwerp.—Sulphur and Soap.

Gorris and Fils, Turnhout.—Paper. Agents: Balmer Lawrie & Co., Calcutta.

Martiny & Co., Brussels.—India Rubber.

Van de Wynchele, Boulevard, Brussels.—Bleached Yarns.

Section G.

(CLASSES 82 to 109.)

Allen & Co., American Tool Works, the Dam, Antwerp.—Tools, Pick-axes, Rollers, Iron Beams.

Cartouches and Projectile Factory, Anderlecht, Rue de Gougans, Brussels.—Cartouches and Balls.

Societe Anonyme des Forges de La Providence, Marchienne.—Iron Goods.

La Societe Anonyme des Forges and Laminoires de l'Alliance, Marchienne.—Rolled and Wrought Iron.

Montefiore-Levi (J.), Brussels.—Telegraph and Telegraph Lines.

Les Ateliers de Brabant, Molenbeck.—Sugar Cleaning Machinery.

Section H.

(CLASSES 110 to 136.)

Jovenceau (A.), Tournai.—Chocolate and Cocoa.
Agents: Balmer Lawrie & Co., Calcutta.

Meeus (Louis), Antwerp.—Geneva.

Banne (Constant), Malster, Anderlues.—Malts.

DENMARK.

Section H.

(CLASSES 110 to 136.)

Lindt, Copenhagen, Denmark.—Sardines and Herrings.

FRANCE.

V. N. LARUELLE, Commissioner.

AGENCE GENERALE FRANCAISE.—LARUELLE AND CHADEYSSON, Representative Agents.

Section A.

(CLASSES 1 to 6.)

Blot (Eugene), Dunkerque.—Groups of Statues in terra cotta, representing sea fishermen and their family.

Section B.

(CLASSES 7 to 15.)

Bataille (H), Rue de Chabrol, Paris—Oleographs, chromos, printed labels and cards of every description.

Section C.

(CLASSES 16 to 22.)

Bailly and Co., 22, Rue Drouot, Paris.—Speciality of Pharmaceutical preparations—

QUINA-LAROCHE : that "Elixir Vineux" is the only preparation that was awarded 16,500 francs by the "Institut National de France," and six gold medals at international exhibitions.

Bardou (Job), Rue St,-Sauveur, Perpignan—Cigarette paper—55 rewards first order of merit, 5 gold medals and seven diplomas of honor.

Daroux, Paris—Pharmaceutical preparations.

Limousin and Co., Paris—Pharmaceutical preparations.

Chassaing Guenon and Co., 6, Avenue Victoria, Paris—Pharmaceutical preparations.

Bravais, Paris—Drugs and medicines.

Faure (Dr.).—The watering establishment, near Pratz de Molle, Pyrenées Orientales.—Mineral waters.

Rigaud, Paris.—Drugs and medicines.

Chaust (A.) & Co, Place de l' Opera, Paris—Tooth powder, etc.

Heottot, Paris—Drugs and pharmaceutical preparations.

Lechaux, (Rob-Lechaux), Bordeaux—Pharmaceutical preparations.

Pierre (Dr), (A. Choüet et Cie,) 8 Place de l'Opera, Paris.—Dentifrice Water and Powders. Most recommended by the Medical Faculty of Paris. Sole Agents: Kessler Freres & Cie., 5 Cité Rougemont, Paris.

Pillet (Dr.), 62, Rue de Rivoli, Paris—Medicines; medicinal biscuits

Rogus, Paris.—Pharmaceutical preparations.

Rigles, Paris.—Pharmaceutical preparations.

Hardy and Milory, Rue Barbette, Paris,—Colors

Velpry (C.), 8 and 10, Rue St. Thomas, Reims,—Pharmaceutical preparations.

Section D.

(CLASSES 23 to 37.)

Maison Lefaucheux, H Rieger, Successeur, 37, Rue Vivienne Paris.—Light hunting guns, rifles, saloon carbines and pistols; single and double breechloaders of the latest French patents; great variety of revolvers.

Bontemps Pere and Fils, 42, Rue de Cléry, Paris—Cages and whistling birds.

Besson (F.) and Co., 92, Rue d' Angouleme, Paris.—Musical instruments.

Societe des Lunettiers, Rue des Gravilliers, Paris—Optical Instuments of every description.

Benard (A.), 5, cité du Petit Thouards, Paris.—Crockery-ware; fancy boxes; bronzes; looking glasses; vases, etc.

Biardot, 12 Rue Beaurepaire, Paris.—Unchanging Crystal Beads, Gilt and silvered inside; imitation of Coral.

Detemmerman, 52, Reu de Paradis, Paris.—Looking glasses and fancy crockery-ware; China-ware; imitation flowers of great variety.

Lecomte, 220 Reu St,-Martin, Paris—Capsules and metal leaf materials of every description for corking bottles.

Charles (Jean), 17, Rue du Cygne, Paris,—Genuine enamel work, vases, boxes, etc.

Lemaire, 22 and 26 Rue Oberkampf, Paris—Chevalier de la legion d'honneur, Exposition Universelle Paris, 1878—Marine, field, and opera glasses.

Section E.

(CLASSES 38 to 52.)

Martin, Rue des Archives, Paris—Mechanical toys, swimming dolls, jumping frogs, etc.

Fretin (A), 64, Rue de Rennes, Paris.—Ladies, fancy shoes and gentlemen's hunting boots.

Dreyfus Freres, 35, Rue Meslay, Paris.—Jewelry manufacture

Regad Fils, 53, Rue Torbigo, Paris—Imitation stones, diamonds, rubies, sapphires, etc.

Dumet, 19, Rue de la Sourdiére, Paris.—Embroidered furniture ; silk stuffs.

Frey, 134, Rue du Temple, Paris.—Imitation jewelry and "Articles de Paris."

Grenet Freres, 114, Rue du Temple, Paris.—Sterling silver Jewelry ; bracelets and silverware etc.

Henriet Aine, Rue Mercoeur, Paris—Ladies, and children's shoes, men's boots.

Henry (A.), Rue Thevenot, Paris—Muslins, silks and artificial flowers.

Legrand Bros, 8 Rue St. Joix, Paris—Printings in relief on cloth, and velvets ; Table Covers ; imitation of gold embroidery.

Vernin and Co., Paris—Wax pearls.

Zimmerli (E.), 110, Rue du Temple, Paris—Unmounted rings of all descriptions for manufacturing jewellers.

Challiol. and Chametaul, Silk manufactures, Lyons ; and 2, Barretto's Lane, Calcutta.—Silks.

Revel Freres, Lyons,—Umbrellas' M. Foyole, Agent in Calcutta.

Section F.

(CLASSES 82 to 109.)

Georges Hortogs and Co. 112, Place Lafayette, Paris.—Varnish.

Section G.

(*CLASSES* 82 *to* 109.)

Angelis (G. O),—Electrical Machine for making ices and dragées

Dandoy Maillard Lucy and Co., Maubeuge.—Drilling machine with revolving pillar and swinging table and vice.

Decauville Aine, Petit Bourg.—Patent Portable Railway and Rolling Stock.

See Descriptive Notice.

Senamaud, 116, Rue de Toulouse, Bordeaux.—Cutting Machine for sausage meat, etc.

Vigneron (H.), Paris, Manufacturer of Sewing Machines.—Sewing Machines. Sole Agents for India : H. Sabow and Co., Calcutta.

Decauville Aine. PATENT PORTABLE RAILWAYS AND ROLLING STOCK MANUFACTORY and General Engineering Works, Petit Bourg, France.

LONDON & INDIAN AGENCY.—7 Idol Lane, Great Tower Street, E. C. ; Robt. von Glehn and Sons—Lionel Decle, Agents.

INDIAN AGENCY.—5-1 Council House Street, Calcutta ; L. Decle, Agent.

Potable Railway and Rolling stock worked by Locomotive Traction.
Plant for Plantations, Mills, Factories, Earthworks, Military operations, Street Tramways, Municipalities, &c.

Of all questions that of economical transport is the most important, and by using the DECAUVILLE RAILWAY a considerable saving may be effected.

Among the great advantages of the system, are its cheapness, its durability, and the great rapidity with which it can be laid down, and removed and relaid.

To give an idea of this, 4 men can take up 400 yards of rails and lay them down 40 yards further on in less than an hour.

A distinguishing feature of the Decauville Railway in comparison with other light lines is its solidity, and also its stability, which is due to the bearing on the ground of the whole lengths of the rail base, as well as the sleepers.

The line is constructed of sections of steel rails of 4 ft., 8 ft., and 16 ft. lengths rivetted to corrugated steel sleepers, so that the whole section form, but one piece. The sleepers are rivetted by powerful machinery to the rails, giving to the line a strength double that obtained by the use of bolts or ordinary rivets.

This light railway can carry the same load as an ordinary broad gauge, the weight being distributed over a great number of axles, while its cost is *fifteen times lower*. It has, moreover, the notable advantage of being worked with very sharp curves.

HISTORY OF THE PORTABLE RAILWAY.—Mr. Decauville is the sole original inventor of the Portable Railways now so extensively used all over the world. It was only in 1876 that these Railways were invented by Mr. Decauville for his private use, to enable him to clear the crops on a large estate of more than one thousand acres, of which he is the proprietor and before that time portable railway of any sort bad ever been invented.

The same year these Railways were exhibited in five Exhibitions, and at each a Gold Medal was awarded. Since then in every Exhibition, where this plant has been shewn, it has invariably obtained the first prize. During the past seven years 22 GOLD MEDALS and 13 FIRST PRIZES have been awarded to the Decauville Patent Portable Railway, and the French Government recognizing the great services rendered by Mr. Decauville to agriculture, created him a Knight of the Legion of Honour after the Paris Universal Exhibition.

The immense success which Mr. Decauville has achieved may be gathered from the fact that in 1876 the Works at Petit Bourg employed only 35 WORKMEN, whereas now upwards of 800 WORKMEN are engaged, who live in houses erected for them by Mr. Decauville. A bakery, canteens, &c., are attached to the works, and last year a Reading-room and a Theatre were added by Mr. Decauville for the use of his employérs.

A model farm, a distillery, and very extensive quarries are also attached to the works.

The DAILY production of these workshops are 5 MILES of portable railway with 100 WAGGONS, all the work being done by 280 MACHINE TOOLSof Mr. Decauville's invention, by which 100 TONS OF STEEL are worked daily.

Within the last six years Mr. Decauville has supplied 2,700 CUSTOMERS WITH Two THOUSAND MILES of rails, and upwards of THIRTY THOUSAND WAGGONS and locomotives.

Mr. Decauville having been requested so frequently to open his works to visitors, he decided, in 1878, to throw them open twice weekly on Tuesdays and Fridays, and on those days a break is in attendance at the station at Petit Bourg to convey intending visitors to the works, which are a mile distant.

During the Paris Exhibition of 1878 the Committee of the International Exhibition, having decided to make a practical experiment of Steam Ploughing on Mr. Decauville's estates, upwards of 5,000 visitors came to the Petit Bourg Works in a single day.

The average number of visitors is 10,000 yearly; and in 1879 the works were visited by the President of the French Republic, in order to witness some experiments that were being made with a light railway for military operations, which resulted in Mr. Decauville's system being introduced into all the French Forts and Arsenals.

The immense increase in the demand for Mr. Decauville's Railway may be gathired from the rapid increase in the number of letters received anually.

	1878.	1879.	1880.	1881.	1882.
Number of letters received at Petit Bour	10,719	12,609	17,137	24,300	29,818

The great success Mr. Decauville has met with has induced unscrupulous firms to copy, not only his plant, but also his catalogues and circulars.

The inferior quality of the plant offered, and the small amount of business done by these competitors, has induced Mr. Decauville to refrain from proceeding against them, as he might easily have done, his plant being patented in all parts of the world.

On two or three occasions he has prosecuted firms with success for infringement of his patents, and in August last again obtained judgment against one of them; and Mr. Decauville can confidently assert that the whole of his competitors do not do as much business in a year as he does in one week.

The following are a few important works which are using Mr. Decauville's Plant:—

The Russian Government, during the Russo-Turkish war:—80 miles of Rails with Rolling-stock.

The French Government during the Tunis war:—50 miles of Rails, with Rolling-stock.

The French Government also have adopted Mr. Decauville's Plant throughout their Forts and Arsenals.

The Sydney Sugar Refining Co., in Australia, 40 miles of Rails and 850 Waggons.

The Panama Canal Works, 40 miles of Rails, and 1,000 Waggons.

Porto Rico, Java, and almost all the Colonies are covered with these small lines.

Section H.

Tourtel (J. and P.), Brasserie de Tantonville, Meurthe-et-Moselle—Hop ; malt-lager beer—gold medals and diplomas of honour at all international exhibitions.

Ackerman (Laurence)—Sparkling Samur.

Adet Siroard and Co., Bordeaux—Claret and Brandy.

Cassart Gordon and Co.—Champagne.

Angelis (G. D.)—Maison Francaise—French confectionery ; Ices.

Bruch, Fourcher and Co., Mareuil sur-Ay.— Dry Champagne, extra quality, monogram.

Cabanes (J. J.), Rouget Pommerol pres Libourne, Gironde.—Red wines.

Compagnie Franco-Suisse des Laits Condenses, Besanson.—Condensed Milk.

De Laage Fils and Co., Cognac Distillery.—Brandy.

Deluluse (T.)—Champagne.

Domaine de Nojac.—24 bottles of Claret.

Fourche, Bordeaux—Red Wines and Syrups.

Jeroy (Ernest) and Co.—Carte d'Or Champagne.

Theophile Roederer and Co.—Champagne.

Lalande (A.) and Co.—Quadros Chatrons, Paris and Bordeaux.—Wines. Agents for India, G. F. Kellner and Co., 5, Bankshall Street, Calcutta.

Martell (J. and F.), Cognac.—Pale Brandies. Agent: H. W. Newton, Calcutta.

Martin (F. L.) and Co.,—Surgeres.—Brandy.

Perinet Fils — Champagne ; Agents for India, G. F. Kellner and Co., 5, Bankshall Street, Calcutta.

Cusenier, Paris.—Liquors of every description.

Robin (Jules) and Co., Cognac.—Pale Brandies. Agent: H. W. Newton, Calcutta.

Societe Edward de Products, Paris.—Preserved butter.

Violet Freres, Thuir—Wines ; Pyrrl ; Ribedine.

Wachter and Co., Epernay—Champagne.

Ralu Fils and Co, Brandy manufacturers, 48 rue d'Enghien, Paris.—Brandy.

Rotumeil and Co., Cognac.—Brandy ; Fine Champagne ; Old Brandy Cognac. Sole Agents : Kessler Frères & Cie., 5, Cité Rougemont, Paris.

Joseph Perrier fils and Co., Vineyards Proprietors, Chalons-sur-Marne.—Champagne.
Sole Agents: Kessler Freres & Cie., 5, Cité Rougemont, Paris.

GERMANY.

Section A.

(CLASSES 1 to 6.)

Normann (A.), Dusseldorf.—Oil Paintings.

Keefer (T. W.)—Paintings.

Section B.

(CLASSES 7 to 15.)

Feiller and Winkelmann, Brunswick.—Pianos.

Romhildt, (L.), Weimar.—Piano.

Rosener (F.), Berlin,—Pianos.

Dorner & Sons (D.), Stuttgart.—Upright Grand Pianoforte, in solid Mahogany. Agents, F. Acerboni and Co., Calcutta.

Gunther and Sons, Kircheim.—Piano, etc.

Schiedmayer, Stuttgart.—Concert Grand in Mahogany; Mignon Grand in Mahogany; Sympathetic Grand; Cottage Piano; Harmonium.

Welte and Son, Baden.—Orchestrions. H. Sabow and Co., Calcutta, Sole Agents for India.

Soundy & Co., Stuttgart and Bombay.—Full Iron Frame Sympathetic Pianoforte; Boudoir Pianino, vertical scale.

Thierry Mieg & Co., Dronach.—

Section C.

(CLASSES 16 to 22.)

Schwabe (Dr. William), Leipzig.—Homœopathic Medicines.

Section D.

(CLASSES 23 to 37.)

Constantion (H.) and Co., Plaine de Walsch, Lomaine.—Watch Glasses.

Dauphin (A.), Stuttgart—Cork Temple.

Heymann (Ludwig), 26, Maverstasse, Berlin,—Globes.

Pfutzenreuter (Ludwig),—Chair & Mirror Manufactures.

Wessel (Ludwig), Borne.—Earthenware, Porcelain.

Lokler (Theodor), Mannheim.—Portable Wire Matresses.

Kuhnert (G.) and Co., Ernsthal.—Glass, Glass Toys, Marbles, &c.

Heerbrandt (Gottl), Raguhn.—Brass-wires.

Agents: Balmer Lawrie and Co., Calcutta.

Section E.

(CLASSES 38 to 52.)

Boehm (Gustave), Offenbach on Main.—Soap; Perfumery.

Conradi and Friedmann, Limbach.—Shirts and Hosiery.

Johan Maria Farina, Julichsplatz, Cologne.—Eau de Cologne.

Kuhn Drathfabrik (E.)—Gold and Silver Wire.

Kuhnert (G.) & Co., Ernsthal.—Pearls.

Stieber (John Balth.) & Son Nuremberg.—Copper, Brass, Silver and Gilt Wire; Plate, Lametta and Thread.

The above exhibit will be found in the Vesibule of the Museum.

Veech (Theodor), Idar.—Precious Stones.

Volkamer's (H. P.), Wme. and Forster, Nurnberg.—Orsidue; Leaf Metal; Gold and Silver Wire, etc. Established 1535.

Hoermann (Carl), Nurnberg, Bavaria.—Orsidue.
Established 1765.

Tittel & Kruger, Plagwitz, Leipzig.—Berlin wool and other embroidery requisites.

Pfutzenreuter (E.), Leipzig.—Gloves.

Grossmann (C. G.), Grossröhrsdorf.—Canvas and Cloth goods.

Section F.

(CLASSES 53 to 81.)

Boehringer and Soebise, Mannheim.—Chemicals; Alkaloid.

Horwitz (Jul.), Dresden.—Cigarettes.

Herbing and Lambreghts, Hugo, Berlin.—Aniline Colours; Dyes.

Kutuln and Co., Helmond.—Dyes.

Mobius (H.) and Co., Hanover.—Manufacturers of Refined Oils for Watches, Sewing Machines, Fire-arms, &c. Agent, James Murray, 11, Dalhousie Square East, Calcutta.

Oehler (K.), Offenbach.—Aniline Dyes.

Anilin and Sodafabric Co., Stuttgart.—Colors and dyed goods.

Section G.

(CLASSES 82 to 109.)

Felton and Guilleaume, Carlswicki.—Iron and Steel Wire Fencing.

Gramer (W.), Saalfeld, Neumegen.—Sewing Machines.

Grapaw (G. D.), Hamburg.—Lithographic Stones; Presses; Ruling Machines for lithographic purposes.

Grimme Nathalis and Co., Brunswick.—Sewing Machines. Fornaro Bros., Calcutta, Agents for India.

Konig and Co., Kaiserslauten.—Sewing Machines.

Opel Manufacturing Co., Frankfort.—Sewing Machines. H. Sabow and Co., Sole Agents for India.

Stieber (John Balth.) and Son, Nuremberg—Insulated Wire for Electricity.

Agents: Abendroth and Co., Calcutta.

Section H.

(*CLASSES 110 to 136.*)

Ewald and Co., Rüdesheim on Rhine.—Still and Sparkling Wines. Agents in India: G. F. Kellner & Co., 5 Bankshall Street, Calcutta.

Frericks and Co., Leipzig.—Milk Food.

Beck and Co., Kaiser Brewery, —Pilsener's Beer.

Steimberg (Philip G.), Manichrace.—Stomach Bitters.

Stollwerck, Cologne.—Chocolate.

Underberg-Albrecht, Rheinberg. —Stomach Bitters.

Vereinsbrauerei, Bergedorf, Hamburg.—Beer in bottle.

Victoria Brewery, Pilsener.—Pilsener Beer.

Weigand and Robs, St. Peters, Nordhausen.—Beer in bottle.

Greve (Phil), Sfunberg Born.—Stomach Bitters.

ITALY.

Section C.

Fabbrica Lombarda di Prodotti Chinicici, Milano.—Quinine.
The largest Quinine Manufacturers. Their productions were submitted to, and much approved of, by the Surgeon-General with the Government of India, who recommended them to all local civil administrative Medical officers.

Section D.

(*CLASSES 23 to 37.*)

Bonetti (L Brescia—1 China Plate.

Bossi (Gaetano) & Figlio, Locarno.—Letter Box.

Candiani (Dr Nap.), Venice.—Glassware and Cabinetware. Agents, F. Acerboni and Co., Calcutta.

Dall' Ara and Co., Milano.—Terra Cotta. Agents, F. Acerboni and Co., Calcutta.

Fratelli Pagani (A.) & Co., Milan.—Saws for Gold and Silversmiths.

Gasparri (Augusto), Leghorn—Show case. Agents, F. Acerboni and Co., Calcutta.

Gibello (P. G,), Rome and Bombay.—Decorative Paintings. Agents, F. Acerboni and Co, Calcutta.

Valsecchi (Mansueto), Milan.—Bijouterie. Agents, F. Acerboni and Co., Calcutta.

Gazzani (G.), Reggio.—Brushes.

Gindi (M. G.), Florence.—A chiselled Silver Plate representing the Triumph of Mars.

Manoli Giovanni, Lodi.—A small Mantel-piece; 2 Medallions.

Mario Latinco, Milan.—Baskets, Cups and Trays, Chiselled Silver.

Palme (G.) & Co, Pisa.—China-ware Porcelain.

Salviati (D.) Venice.—Glassware and Marble Statuary. Agents, A. D'Agostino and Co., Calcutta.

Imitation (16th century Glass Venetian Candelabra.

Societa Co-operativa Ceramica—China and Earthenware.

Vaccari (Gino), Marble Merchant, Leghorn.—Sicilian Marble Washstand; Sicilian Marble Bath; samples of Marble. Represented by C. Lazarus and Co., Calcutta.

Zari (G. B.), Milan—Metalware and Hardwares.

Section E.

(*CLASSES* 38 *to* 52.)

Francati Santa Maria,—Cameos; Mosaics; Corals.

Gallo (G B), Biella.—Hats for Ladies and Gentlemen.

Giovanni Conti, Montegranero.—Slippers; Shoes.

Lingi Gentile di Raffaele, Torre del Greco.—Corals.

Monevi (E,), Genoa.—Linen Shirts

Oneto (David), Genoa.—One spherical Coral.

Rocco Morabito, Naples.—Coral Jewelry. Agents, F. Acerboni and Co., Calcutta.

Sigismondo De Notarise, Naples.—Boots, Shoes and Slippers.

Tacchi and Salvestri, Leghorn.—Corals. Agents, F. Acerboni and Co., Calcutta.

Tommaso Borelli, Torre del Greco.—Corals.

Section F.

(*CLASSES* 53 *to* 81.)

Brizi (Antonio), Perugia—Sundry Samples of Olive Oil.

Carli Angelo & Figli, Porto Mauritis—Samples Olive Oil.

Cinotti (Antonio), Siena—Samples of Olive Oil.

Ferni (A.), Florence—Samples of Olive Oil.

Fornari (A. & G. B.),—Colored skins tanned with sumach and oak bark, specially in colored and morocco, sheep and goat skins, black, light and chéqué hand manufactured paper. Agents, F. Acerboni and Co., Calcutta.

Conti (E.) and Figli, Leghorn.—Soaps. Agents. F. Acerboni and Co., Calcutta.

Gazzano (A.) Porto Mauritis—Samples of Olive Oil.

Ginli (Alberto) Pisa.—Samples of Olive Oil.

Hembelli (G.L.), Monsummano—Samples of Olive Oil.

Lanza (Fratelli.), Turin.—Candles and Soap. Agents, A. D'Agostino and Co., Calcutta.

Silvestri (G.), Lucca—Paper.

Pannelli (Guiseppe), Macerata—Matches. Agents, F. Acerboni and Co., Calcutta.

Tommaso Bonavera.—Syrups.

Section G.

(CLASSES 82 to 109.)

Societa Ceramica Richard Millan.—Porcelain. Agents, F. Acerboni and Co., Calcutta.

Izar (G. B.), Milan.—Electro-platings.

Section H.

(CLASSES 110 to 136.)

Benedetto Ozzola, Milan.—Butter.

Cerri (Luigi), Cremona.—Almond cakes. Agents, F. Acerboni and Co., Calcutta.

Cinotti (Antonio), Siena.—Samples of Wine.

De Sena (Elia), Naples.—Liqueurs. Agents, F. Acerboni and Co., Calcutta.

Faccioli (A.) & Co., Milan.—Italian Butter.

Ferni (A.), Florence.—Samples of Tuscan Wine.

Francesco Cinzano.—Vermouth.

Fratelli Cevinti, Genoa.—Wines and Vermouth Elixir, Cocoa-Bolivara.

Garibaldi and Cresta, Genoa, Milan.—Butter.

Guscetti de Benedetto E. Ozzola, Milan.—Butter.

Malfettani & Co., Sampierdarena.—Cognac and other Liqueurs. Agents, F. Acerboni and Co., Calcutta.

Materi (Cav. F.P.), Grassano.—Oils and Cheese. Agents, F. Acerboni and Co., Calcutta.

Morandi Giovanni Fu Ignazio, Sampierdarena.—Liqueurs. Agents, F. Acerboni and Co., Calcutta.

Navigazione General Socielta Italiana, Florence.—Salt.

Pietrogrande Antonio, Este.—Confectionery. Agents, F. Acerboni and Co., Calcutta.

Saoj (B.), Turin.—Wine (Barola.)

Scala (Guiseppe), Naples.—Wine and Liqueurs. Agents : A. D'Agostino & Co., Calcutta.
Vine creeper and tree holding Wine.

Sogno (Bernardo), Turin.—Tinned Provisions. Agents, F. Acerboni and Co., Calcutta.

Tommaso Bonavera, Oneglia—Syrups.

Vitali Egides.—Italian ling Wines.

JAPAN.

Section A.

(CLASSES 1 to 6.)

Kuhn and Co., Yokohama.—Photographs of Japanese Scenery and figure types by Stielfried and Anderson.

Section D.

(CLASSES 23 to 37.)

Kuhn and Co., Yokohama.—Satin and corded silk embroidered curtains; Gold brocaded table cloths; brocaded satin quilts.

Kuhn and Co., Yokohama.—Specimens of Satsuma; Smari; Kinshin; Kutani and Tokis porcelain ware, ancient and modern, comprising vases; bowls; plates; figures; tea-sets; jars, &c., in all the various styles of decoration

H. H. the Maharajah of Jahor, G.C.M.G., K.C.S.I.—A pair of antique Malay earthenware water jars.

Kuhn and Co., Yokohama.—Ivory inlaid and lacquered vases; Ivory carvings; Elephant carved in jade; wood carvings; specimens of Japanese Lacquer, antique and modern, including cabinets; screens; panels; writing boxes; trays; medicine boxes; cups and stands—many of these Exhibits are inlaid with ivory and tortoiseshell.

Kuhn and Co., Yokohana.—Specimens of Urns; incense burners; candelabra; vases; statuettes; brasiers; figures of birds and animals; jewel boxes; idols; hibashi; tea-jars, water-jugs, &c., in bronze and iron, carved and inlaid, ancient and modern—many of these Exhibits are of unusual size and exquisite workmanship, by celebrated Japanese Artists.

Section E.

(CLASSES 38 to 52.)

Kuhn and Co., Yokohana.—Silk obes or girdles; silk dressing gowns; silk smoking jackets; silk embroidered smoking caps; crape shawls; silk and crape embroidered robes.

Section I.

(CLASSES 137 to 143.)

Kuhn and Co., Yokohama.—Richly embroidered satin hangings of large size

Kuhn and Co., Yokohama.—Specimens of Japanese cloisonne ware, including vases, plates, tea-jars, jewel boxes and plaques.

MALTA.

Section E.

(CLASSES 38 to 51.)

Turnbull and Somerville,—Maltese Lace

Section F.

(CLASSES 53 to 81.)

Turnbull and Somerville—Cigarettes

NETHERLANDS.

Section D.

(CLASSES 23 to 37.)

Kaulen (G W) and Co, Helmond, Turkey Red Yarn

Swinkels (W), Helmond—Turkey Red Yarn

Section H.

(CLASSES 116 to 136.)

Bensdorp and Co., Amsterdam—Cocoa.

De Nederlandsche Gist and Spiritus Fabrick, Delft.—Imperishable yeast in tins, keeping in all Climates.

Haagsche Margarine Boter Fabrick, The Hague.—Butterine manufacture.

The Hollandia Company—Condensed Milk.

Fabric von melt product, Vlaardingen.—

Rademakers and Co., Helmond—Geneva

Wynand Faching, Amsterdam—Liqueurs

NETHERLANDS INDIA.

Section A.

Batavia Committee.—Model of a Bamboo Suspension Bridge in Sumatra.

Batavia Committee.—A Wooden Figure mounted on a pedestal representing a Javanese Nautch-girl in her usual attire.

Ruden Adipati Sosronegoro, (Saerakarta—Java).—Models of different kinds of Javanese Boats.

Samarang Sub-Committee.—Model of an Indigo Factory.

Wiselius (J. A. B).—Models of Boats from Samarang; Models of Native Houses in Western Java; Model of a Native House in Central Java; Model of the Mosque at Samarang. (All made by natives.)

Section B.

Batavia Committee.—A Map of Java with scale of distances; A Map of the district of Kediri; 14 Maps of different districts in Java; A trigonometrical Map of Batavia; 6 Plans of Military Barracks, Kitchens and Lavatories in use in Netherlands-India; 2 Maps of districts in Java, exhibited as proofs of proficiency in drawing by Raden Saero Oekara.

57 Photographs of the district of Dyoejokarta in Java; Pictures of the BoroBudor, Buddhist Temple in Java by Dr. Leeman and T. C. Wilson; Collections of Photographs of the Boro-Budor. Buddhist Temple in Java by Kinsbergen.

Billiton Tin Company.—Map of the Island of Billiton with explanatory notes.

List of all the Tin Mines worked at present and in former times.

Kroon (J. H.), Batavia.—A military distance Map of Java; a land registration Map of Batavia, (made by native workmen.)

Section D.

FURNITURE AND OTHER OBJECTS FOR THE USE OR DECORATION OF DWELLING-HOUSES, AND OTHER BUILDINGS, AND HOUSEHOLD FURNITURE.

Batavia Committee.—Specimens of Palembung lacquered furniture, consisting of 2 Sofas and 8 Chairs.

Padang Sub-Committee.—Household furniture from Western Sumatra.

Sourabaya Sub-Committee.—Collection of Tools and Implements illustrating native domestic life in general in Eastern Java.
Household furniture in Central Java.

Section F.

RAW PRODUCTS AND MANUFACTURES FROM RAW PRODUCTS.

Batavia Committee.—A slab of Banca Tin; 2 bales of samples of Kadu Tobacco.

Billiton Tin Company.—A block of Billiton Tin; 63 Bottles containing samples of Tin Ore obtained from different mines in 1882; a lump of Rock-ore, weighing 67 pounds; a lump of Sand-stone, imbedded in quartz; a sand-stone ball, with descriptive note.

Bueren (R. van), Bodja, Java.—Samples of Kadu Cigars.

Deli Tobacco Company.—Samples of Deli Tobacco.

Padang Committee.—Camples of Cassia Vera; Sample of Gum Dammar; 2 samples of Gum Benzoin; Sample of Gutta Susu; Sample of India Rubber; 2 samples of Rattans; 2 samples of Mats.

Pecoult and Buffet, Batavia.—Imitation Straw hats made of Bamboo; Samples of plaited work made of the fibre of the Hibiscus-Telearcus tree.

Samarang Sub-Committee.—2 baskets of samples of Kadu Tobacco.

Sturler (W.E.de) Tjiomus, Java.

Samples of	A	Chincona	Ledgeriana.
,,	B	,,	Officinalis.
,,	C	,,	Succumbra.
,,	D	,,	Mirantha.
,,	E	,,	Pahudiana.
,,	F	,,	Slaskarliana.
,,	G	,,	Culoptera.
,,	H	,,	Lancifolia.
,,	I	,,	Calisaya Javanica.
,,	J	,,	Calisaya, Schuhkruft.

Van Ende, Tjipantjor, Java.—Samples of Chincona.

Section G.

(CLASSES 82 to 109.)

Deeleman (T.)—A Javanese Tonga Carriage.
A Sumatra Tonga Carriage.

Section H.

De Sturler (W. E.), Tjiomuss Java.—A collection of 113 samples of Paddy. A collection of 4 sample, of Arrowroot: Sago; Kiray; and Tapioca.
22 Samples of Tea.
12 Samples of Coffee.
Samples of Cloves.
Samples of Nutmegs.
Samples of Mace.
Samples of Ceylon and China Cinnamon.

Maclaine Watson and Co., Batavia.—5. Samples of Rice from the Dramaga Estate; Samples of Rice from the Nanquary Estate; 1. Sample of Meal; 1. do. of Arrowroot from the Dramaga Estate.
15 Samples of Tea.
14 Samples of Coffee.
Samples of Vanilla from the Nangueny Estate.
Sample of Cloves from the Dramaga Estate.
Samples of Nutmegs.
Samples of Mace from the Dramaga Estate.
Sample of Java and China Cinnamon from the Dramaga Estate.
Dramaga Estate, 22 Samples of Tea.

Nangueny Estate.—5 Samples of Coffee.

Pourabaya Sub-Committee. Preserves.

Mundt (F.), Purakun Salak, Java.—Samples of Tea.

Slolle (Alb.) Tjirohani, Java.—
Samples of Tea.
Samples of Coffee.
Samples of Palm Sugar.
Samples of Vanilla.
Samples of Cloves.
Samples of Nutmegs.
Samples of Mace.
Samples of Cacao.

Phillippean (T. C.), Tji Salak.—Samples of Tea.

Batavia Committee.—99 Samples of Coffee.
26 Samples of Sugar.
40 Samples of Indigo.

Van Maanen, Java.—Samples of Coffee.

Samarang Sub-Committee.—Samples of Coffee.

Sayers (T.), Gemu, Java.—14 Samples of Sugar.
Samples of Vanilla from the Dramaga Estate.

Padang Sub-Committee.—
Samples of Cloves.
Sample of Mace.
Samples of Nutmeg.

Section I.

AGRICULTURE AND HORTICULTURE.

Sourabaya Sub-Committee.—A collection of Agricultural and Horticulture Tools and Implements from Eastern Java.—

Samarang Sub-Committee.—Samples from Central Java.

Section K.

OBJECTS OF NATIVE ART AND INDUSTRY, WEARING APPAREL, &c.

Batavia Committee.—Umbrellas used by Natives as marks of rank and distinction.
Javanese Dresses.
Javanese Sarongs (Sari).

Billiton Tin Company.—Articles of Billiton Native manufacture.

Wiselius (J. A. B.)—A collection of Ethnological Photographs illustrating the different races of the Indian Archipelago.

Padang Sub-Committee.—Native woven Sarongs; Slendangs and Head Dresses. Native filigree work.

Sourabaya Sub-Committee.—A collection of Tools and Implements, illustrating certain branches of Native Industry in Eastern Java. Ditto in Central Java

PHILLIPINE ISLANDS.

La Sociedad Anonima "El Oriente," Fabrica de Tobaccos, Manilla.—Manilla Cigars. Agent: H. W. Newton, Calcutta.

PORTUGAL.

Section H.

(CLASSES 110 to 136.)

Mackenzie Driscoll y Ca, Oporto—Port Wine. Agents in Calcutta: G. F. Kellner & Co., 5, Bankshall Street.

SPAIN.

Mackenzie y Ca, Jerez de la Frontira—Sherry. Agents in Calcutta; G. F. Kellner & Co., 5, Bankshall Street.

Montebello and Co.—Champagne.

SWEDEN AND NORWAY.

Section D.

(CLASSES 23 to 37.)

Hliorth, Norway, Christiana.—Matches.

Orebro Standstick Fabrik, Orebro, Sweden.—Matches.

Alsing and Co., Standstick Fabrik.—Matches.

Jolsen (H.) Standstick Fabrik.—Matches.

Nictedal, Stendstick Fabrick, Christiana, Norway.—Matches.

Section H.

(CLASSES 110 to 136.)

Alsing and Co.—Swedish Punch and Brandy.

SWITZERLAND.

Section A.

(CLASSES 1 to 6.)

Kunzli Bros, 10, Leidenhofe, Zurich—Oleographs

Section B.

(CLASSES 7 to 15.)

Huni and Hubert, Zurich—1 Concert Grand Piano; 1 Boudoir Grand Piano; 1 Cottage Piano

Kerrer (S), Teufenthal—Musical Boxes. Agents: Fornaro Bros., Calcutta.

Section C.

(CLASSES 16 to 22.)

International Bandage Company, Schafthouse—Antiseptic Surgical Appliances and other materials for wound dressing and hygienic purposes

Section D.

(CLASSES 23 to 37.)

Backshmids, Roskopf, Bern.—Watches.

Charpie and Co.—Watches

Courvoiser and Co.—Watches

Courvoisier Freres.—Watches

Favre Leuba and Co,—Watch and Clock Manufacturers, Locle, Switzerland; Established 1814, Calcutta and Bombay.—Clocks and Watches.

Philippe and Co, Patek—Geneva Watches

Ramsauer (Arnold), Herisan—Alpine Tourist Equipment; Swiss Embroidery, etc.

Schochlins (W.)—Watches

Section G.

Ramsauer (Arnold), Herisan.—Arms and Ammunition.

TURKEY.

Bichara Michel and Co, Jerusalem—Collective Exhibit of Eastern objects

Warde (H), Constantinople.—Collective Exhibit of Carvings; Precious Stones; Beads, &c

UNITED STATES OF AMERICA.

Section A.

(*CLASSES 1 to 6.*)

Currier and Ives, Nassau St., New York—Views of American Cities.

Government Printer, Washington, D. C.—Engraving, Lithography, &c., as contained in the Reports of the United States Commissioners at the Paris Universal Exposition. (Represented by Mr. Hogan, Great Eastern Hotel.)

Lockwood (Howard), New York, —Photo electrotyping,

Section B.

(*CLASSES 7 to 15.*)

American Mail and Export Journal, New York.—Printing, and Wood Engraving, Jno. Hogan, Great Eastern Hotel, Representative.

Colton (G. W.) and Co., William St., New York,—Maps of the World,

Faber, Canagoharie, New York.—Pen-holder and Pencil Cases, and India Rubber Goods.

Fairchild (Le Roy W.), 18, John-street, New York.-Gold Pens, Gold and Silver Pencil Cases, Charms &c. Jno. Hogan, Great Eastern Hotel, Representative.

Purchases can be made at Messrs. W. Newman & Co., Dalhousie Square.

Juvet and Co., Canagoharie.—New York.—Dead Globes and Relative Tunic Globes; Fellurnam.

Lockwood (Howard), New York.—Publications and Printing.

Shipman (Asa. L.) and Sons, 10, Murray St., New York.—Adhesive Letter and Invoice Files and Scrap Books.

The American Stationer, New York.—Trade Publication. Mr. Hogan, Representative.

The Miller's Journal, and Flour and Grain Reporter, New York.—A Trade Publication. Mr. Hogan, Representative.

The Paper Trade Journal, New York.—A Trade Journal. Mr. Hogan, Representative.

The Miller, Millwright and Millfurnisher, New York, Mr. Hogan, Representative.

Warren and Co., Moses, Chicago.—Hill's Manual of Social business forms.

Section C.

(*CLASSES 16 to 22.*)

Ballantine (H.).—Medicinal Preparations.

Sanders & Co., Eno, St. Louis Mo.—Veterinary Medicine Chset for Troop horses.

The Charles A. Vogeler Company, Baltimore Md.—St. Jacob's Oil, or the Great German remedy,—the best pain curing Remedy, and healing, appliance. The Jurors at New Zealand awarded first Order of Merit and Silver medal. Grand remedy for gout and rheumatism—Address Mr. Hogan, Great Eastern, for samples to cure chronic complaints.

Section D.

(*CLASSES* 23 *to* 37.)

Atwood Safety Nut Co., Springfield.—Safety Nuts for Screws, &c.

Davenports, Ld., Longport, Boston.—Modern Crown Derby China Ware.

Eagle Metallic Brush Co., Boston.—Metallic Hair Brushes.

Hartshorn (Stewart), Broadway, New York.—Self-acting Shade Rollers.

Jay G. Wemple & Co., 446, Pearl Street, New York.—Window Shades. Represented by Mr. Hogan, Great Eastern Hotel.

Paterson (J. F.), Bridgport, Conn.—"The Patterson Organs." Mr. Hogan Representative.

Section E.

(*CLASSES* 38 *to* 52.)

Lanman and Kemp, New York.—Florida Water; Sarsaparilla.

Section F.

(*CLASSES* 53 *to* 81.)

Blackwell (W. T.) & Co., Durham.—Long cut Tobacco.

Mills (Col. Anson U. S. A.,) Washington, D. C.—Woollen woven Cartridge Belts, for Army and Sporting purposes. Mr. Hogan, Representative.

Shipman (Asa. L.) & Son, New York.—Adhesive Letters and Invoice Files, &c.

Tennant (D.B.) & Co.,—Tobacco.

Weston, Hon. Byron, Daltonr Mass.—Linen Record and Ledge, Paper.

Whiting Paper & Co., Holyoake, Mass.—Machine and Hand-made Paper.

Section G.

(*CLASSES* 82 *to* 109.)

Domestic Manufacturing Co., New York—Sewing Machines H. Sabow & Co., Calcutta, Agents. for India.

Gould's Manufacturing Co., Senecatall, New York.—Pumps of various kinds

Railway Barb Fencing Co. Cleveland, Ohio.—Steel barb fencing Wire.

The Singer Manufacturing Co. New York.—Sewing Machines. *See descriptive notice.*

Thomson (T. E.) and Co., 9, Esplanade Row, Calcutta.—Chadburn and Coldwell Manufacturing Co's. Excelsior Roller Lawn Mowing Machines for hand and horses power.

Section H.

(*CLASSES* 137 *to* 143.)

Avery (B. F.) and Sons, New York.—Ploughs.

The following exhibits are also in the United States Court under the Charge of Mr. Hogan, Great Eastern Hotel.

The Artistic Stationery Co., London.—Birthday, Menu, Masonic, Christmas and other Cards. General Agent for Australia, Mr. J. J. Horrocks, Sydney and Melbourne. These choice Works of Art can be purchased at Messrs. W. Newman & Co., Limited, Dalhousie Square.

Dodson (A. J.) London.—*The English Stationer* : a trade publication.

Franklyn (H. M.) & Co., Melbourne.—*Federal Australian*: weekly publication for all Australia.

Gordon & Gotch, Melbourne, Sydney, Brisbane and London.—*The Australian Handbook*, (incorporating New Zealand, Fiji and New Guinea) and Importers' and Shippers' Directory, with coloured maps and full information respecting New South Wales, Victoria, South Australia, West Australia and Queensland.

Catcheside (W. F.), London.—*Paper Making* : a monthly journal, a most useful publication to all concerned in the trade.

Murray (George), Collingwood Paper Mills, Sydney.—Specimens of news and other papers.

Wise Claffin & Co., Dunedin, New Zealand.—*The New Zealand Directory* for 1883-4, giving the names of all the inhabitants of the Islands and much other information.

The Singer Manufacturing Company, New York, London, Calcutta, Bombay, etc.

SINGER'S SEWING MACHINES manufactured only by THE SINGER MANUFACTURING COMPANY (formerly I. M. Singer and Co.) can be seen in work in the Exhibition turning out hemming, gathering, sewing, quilting, ruffling, tucking, embroidering, braiding, cording, trimming, kilting and making a variety of fancy and other zigzag stitches.

	Rs.	As.
Hand Machine,	49	8
Foot ,,	69	8
Hand & foot do.	74	8
Medium Machine,	81	0
Arm or Shoemaker's Machine ...	103	8
10 inches kilting ,,	40	8

	Per doz. Rs.	As.
Needles ...	0	12
Cotton, 200 yds.	1	0
Cotton, 500 yds.	2	8

Silk, Braid and all separate parts of Sewing Machines supplied at moderate rates.

Pearled or Nickel plated Rs. 4 extra; both combined Rs. 8 extra.

"Improvements Unrivalled" ! ! ! Visitors are requested to inspect the New Patent Oscillating Shuttle Machine. Never before imported in India; and having received hundreds of testimonials from large manufacturers of ready-made clothing; shirt and collar manufacturers; boot and shoe manufacturers, each of them working from 50 to 300 machines.

They are specially made for light work, and are perfectly suitable for Families and Millinery.

Every Singer's Machine bears The Singer Manufacturing Company's Trade Mark as per the annexed sketch.

This Trade Mark is affixed to the Machine near the Balance wheel and also cast on each side of the stand.

43.

OFFICES IN INDIA.

BOMBAY, Churchgate Street. CALCUTTA, 4, Dalhousie Square. ALLAHABAD, 14, Elgin Road. LAHORE, Anarkali.

PICTURE GALLERY.

(IN THE ART AND JEWELRY COURT.)

BAMA PADA BANERJEE, Tribune Office, Lahore.

1
2
3

BISWESWARA BASU, 77 Mooktaram Baboo's Street, Calcutta.

4 Oil Painting. A Pleasant Dinner.
5 Do Matches.
6 Do Ganga Khore.
7 Do Baboo Preonath Bhur,

RONALD BAUDUIN.

8 Oil-Painting.
9 Oil-Painting.

PESTONJI BOWNJI, Head Draftsman, Ajanta Caves Kandeish.

10 Oil Painting. Parsee Lady Sewing.
11 Do Parsee Lady Feeding a Parrot.
12 Do Bhil smoking.

JAMES W. BROWNE, 2 Esplanade Row, Calcutta.

13 Water Colour Drawing. The Cathedral, Calcutta.
14 Do The Musjid, Calcutta.
15 Do Eden Gardens, Calcutta.
16 Do The Bandstand, Calcutta.
17 Pen and Ink Sketch. (Copy) Une Bonne Histoire.

ALEX E. CADDY, Barrackpore.

18 Oil Painting. His Daily Bread.
19 A Platinotype Reproduction of the above.
20 Oil Painting. Portrait of the Rev. K. M. Bannerjea, LL.D.
21 Do The Comet as seen at Burdwan October 10th, 1882.
22 Do (Copy). Alorey's "Judith."
23 Do do Guercino's "Sybil."
24 Do do Storm Bound.

P. B. CAMA, 4 Gowallia Tank Road, Bombay.

25 Oil Painting, Hooghly Bridge, Calcutta.
26 Do View of Bombay Fort from Malabar Hill.
27 Do View of Macao.
28 Water-colour Drawing, View of Hong-Kong from Wanchi Pier.
29 Do Chinese fruits.
30 Do Bombay mangoes.
31 Do Canton chrysanthemums.
32 Do Fruits, love-apples, &c.
33 Do The broken tambourine. (Copy.)
34 Do H. M. S. *Victor Emanuel*, Hong-Kong Harbour.

35 Water-colour Drawing, View of Hong-Kong from the mainland of Kowloon.
36 Do Macao, praya grande.
37 Do Bombay fruits.
38 Do A green lane, Hong-Kong.
39 Do Study of a tree.

MRS. DALLAS, Simla.

40
41
42

DR. DE FABECK, 19 Loudon Street, Calcutta.

43 Oil Painting, Portrait of H. H, the Lieutenant-Governor of Bengal
44 Do Portrait of a Lady
45 Do Portrait of a Lady
46 Do Portrait of a Lady
47 Do Portrait of the Hon'ble Mr. L. P. D. Broughton
48 Do My lady's page
49 Do Study from life
50 Do View of Three gun battery, Capri
51 Do The Ca'd'Oro on the grand Canal, Venice
52 Do The Grand Marina, Capri, Ischia in the distance
53 Do Market boat leaving Capri ,for Naples
54 Water-color Drawings. View from the Ridge, Simla, looking towards the snows,
55 Do How I crossed the Guggur on my way to Simla in the rains
56 Do Boats on the Lagune, Venice
57 Do Murano and the Cemetery Island, Venice

MRS. GRANT, Calcutta.

58 Copy, Faust and Marguerite.
59 Do Dreams.
60 Sketch, Jepanese Landscape.
61 Do Italian Landscape.

C. GREGORY 24 Royd Street Calcutta.

62 Crystoleum Oil-paintings. Othello and Desdemona by Miss Mary Seth, obtained the silver medal at the Amateur Art-Exhibition, Marlborough Gallery.
63 Do A Tyrolese Maid, by Miss Mary Seth.
64 Do Three Heads by Miss Helen Gregory.

JOHN GRIFFITHS, Bombay.

65 Oil Painting Ajanta Caves—A. D. 600.

'That noble order of the Yellow Robe
'Which to this day standeth to help the world
* * *
'All which is written in the holy Books
'And where he passed and what proud Emperors
'Carved his sweet words upon the rocks and caves :
'And how—in the fulness of the times—it fell
'The Budha died, the great Tathâgato,
'Even as a man, mongst men, fulfilling all :
'And how a thousand thousand crores since then
'Have trod the path which leads whither he went
'Unto Nirvana where the Silence live.'

Edwin Arnold's "Light of Asia."

66 Oil Painting. H. H. Rawul Shri Takht Singhjee. K. C. S. I. Thakur Saheb of Bhownaggur.
67 Oil Painting : The late Mr. David Sassoon, (painted for the Poona Portrait Gallery.)

RAM CHUNDER GOPAL, Artist to H. H. Prince of Indore.

68 Oil Painting. Moonlight near Indore.

R. HILL, Calcutta.

69 Oil Painting. Darjeeling.

THEODORE JANSEN.

70 Oil Painting. Life size Portrait of the Prince and Princess of Wales.

W. KING, Imperial Museum, Calcutta.

71
72
73

PRIYALAL MITTRA, Sobha Bazar, Calcutta.

74 Oil Painting. H. E. the Viceroy.
75 Do H. H. the Lieutenant-Governor of Bengal.
76 Do H. H. the Maharajah of Durbungah.
77 Do H. H. the Maharajah of Burdwan.

S. M. COARD, 8 Short Street, Calcutta.

78 Oil Painting. A Sketch in the Botanical Gardens, Calcutta.

MOHENDA NATH MOOKHJEE, 3rd Lane, Bocool Bagan, Bhowanipore.

79
80
81

ALF. PALMER, Surveyor-General's Office, Calcutta.

82 Oil Painting. Indian Fruit
83 Do Indian Fruit.
84 Do Pumplenose.
85 Do Apples."

G. PALMER, 13 Wood Street, Calcutta.

86 Oil Painting. Mohorrum.

JULES SCHAUMBURG, Imperial Museum, Calcutta.

87 Oil Painting. Street Scene in Bhopal, Central India.
88 Do Early morning on the Hooghly.
89 Do Evening Scene on the Ganges.

CHAS. SCHIMDT.

90 Oil Painting. Scene on Lake Zurich, Switzerland.

R. A. STERNDALE, Calcutta.

91 Oil Painting. Pita.
92 Do Garajta.

LIEUT.-COL., H. C. B. TANNER, Survey of India.

93 Pen and Ink Sketch. The Western face of Nanga Parbat seen from the cliffs above Jor.
94 Do Kashmir Pine Forest
95 Do The Yampung Plateen at the Southern foot of Kabin and Kinchinjunga
96 Do Gilgit Tarn, 12,000 feet. Early spring
97 Do Telescopie View—Mount Everest (on the left) 29,000 feet, and Peak XIII, (on the right) 27,800 feet, as seen beyond the Tamber and Arun Valleys from the ridge near Sandakphu, on the Sikkim–Nepal boundary.

98 Pen and Ink Sketch. Junnoo, 25,300 feet, from the Nipal Sikkim watershed
99 Do Kinchinjunga, from below Birch Hill, Darjeeling
100 Do Eastern Nepal, from the rocks below Phulloot, embracing the Arun and Tambur Valleys. The snow peaks are on the Southern spurs of Mount Everest.
101 Do Rakaposhi Mountain, 25,000 feet.
102 Do A Gilgit Valley.
103 Do Peaks of the Hindu Kush, overlooking Zabak, in Badakshan, taken from the Gilgit frontier (Telescopic view)
104 Do The Yassani Hunza Mountains
105 Do The snow fields of Gilgit, taken on a Midsummer day
106 Do No title.
107 Do No title.
108 Do Nanga Parbat, 26,700 feet, from the Bunji plain; showing locality of the great Indus flood of 1842. (Oils.)

HORACE VAN RUITZ, Bombay.

120 Oil Painting, Startling intelligence
121 Do Parsee children at school
122 Do Kattyawar Sentry
123 Do To the temple
124 Do Cooly
125 Do Portrait of Mr. B. V. Shastry
126 Do Charity
127 Do At a well in Bombay
128 Do A wet evening
129 Do Parsee child
130 Do Bhisties
131 Do Muktifauj
132 Do Malabar Point
133 Do Dolce far Niente
134 Do View of Bombay
135 Do A Bait (Moonlight)
136 Do Little Ganga
137 Water Colour Drawing, Snuff-shop
138 Do The Hooka
139 Do Moonrise (Backbay, Bombay)
140 Do Winter morning in Bombay
141 Do Breach Candy
142 Do Mahalarmy
143 Do Maharatta village
144 Do Gowallia Tank
145 Do Near Cumballa Hill
146 Do Mohamedan Barber
147 Do Basins peak
148 Do Morning, Bombay
149 Do Evening, Bombay
150 Do Gossain fiddling
151 Do Arena man
152 Do Matheeran
153 Do Ditto
154 Do Ditto
155 Do Bhisties' Bullock
156 Do Fruit-seller
157 Do Maharatta head

LIEUT.-COLONEL R. J. WOODTHROPE, R. E. Survey of India.

158 Oil Painting. Portrait of Major T. J. Williams, R.E.
159 Water-colour Painting. Portrait of T. B. Wells, Esq.
160 Do Portrait of Colonel Clarke.

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202	R. Alott	View on the Sicilian coast,
203	A. Battistuzzi	Interior from the Cathedral at Barcelona,"
204	F. Beda	A game at Billiard
205	A. de. Bensa	Morning ride
206	Do	Going to hunt
207	Do	Perforce hunting
208	C. de, Blaas	Centaur robbing a Nymph.
209	E. Boehm	Mountainous landscape in Switzerland
210	Do	View in Switzerland
211	Do	Spring,
212	Do	Summer,
913	Do	Autumn,
214	Do	Winter,
215	A. Chwala	Landscape near Hohenau, Harvest-time
216	Do	On the lake of Staffel in Bavaria
217	Do	Landscape, Approaching thunderstorm,
218	A. Crevatin	Jealousy
219	L. Dill	Marine. Evening.
220	Do	Marine, Morning,
221	Do	Marine, Harbour Scene,
222	Do	Blonde,
223	Do	Brunette,
224	A. Ebert	Mutual Instruction.
225	Do	Female head.
226	Do	Female head.
227	Do	Indiscretion.
228	Do	Female head.
229	Do	The two friends.
930	P. T. van Elven	Cheapside in London. (Water colour drawing).
231	Do	Westminster Abbey in London. do
232	L. Fay	Landscape with cattle,
233	E. Ferroni	A festival day
234	H. Flockenhans	Winter evening,
235	G. Fumi	Important discovery,
236	F. Gence	The likeness of H. M, the Emperor of Austria, Drawing on Ivory.
237	F George	Venetain girl
238	G. Giovanni	The old fiddler,
239	Do	Old man's head,
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241	T. Hamza	A Page.
242	C. Hasch	Woody landscape
243	Do	Solitude in the wood.
244	Kaufmann	From the Dalmatian coast
245	Do	Coast Scene from the Baltic Ocean
246	A. Kronberger	Critical Situation

The four Seasons,

247	M. Lovatti	After the confirmation. Roman Scenery
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265	A. Savini	Attending the favorites
266	M. Schoedl	Still-life
267	H. Schuhly	Landscape
268	Do	River landscape
269	G. Seelos	View near Aquileja on the Adriatic Sea
270	G. Spondini	Rose season
271	R. Walter	The sleeping play-fellows
272	A. Warlowski	Wallachian Mail in Winter,
273	T. Walter	Idyl
274	T. Wolfram	Gipsy camp in Hungaria, Winter
275	Do	Gang of gipsies in Hungaria
276	C. Zewy	Studio scene
277	A. Zimmermann	Gulf of Baya near Naples, Morning
278	Do	View of Amalfi near Naples
279	Do	Mountain brook near Ramsau Upper Austria

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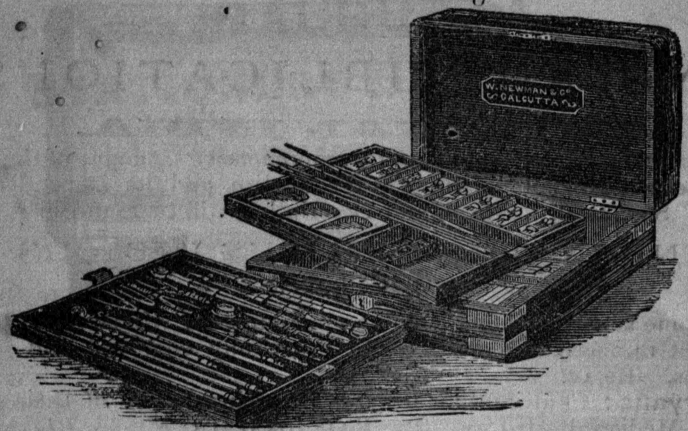

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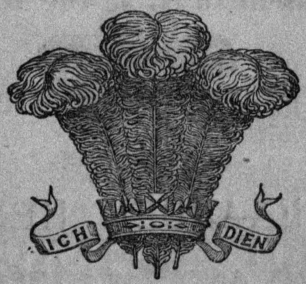

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C. LAZARUS & CO.

Are the Agents for the following Articles in

The Calcutta International Exhibition.

Lincrusta-Walton, the Sunbury Wall Decoration.

This beautiful material has obtained nine prize medals. Highest award wherever exhibited—and has been used in numerous Mansions and Clubs, Saloon Carriages and Steamships, and is impervious to damp or the attack of white ant.

Lincrusta-Walton Drawing-Room, Toilet, Table, and Dinner Mats, executed in beautiful Designs in Solid Relief, and only require to be seen to be appreciated for their chaste and elegant appearance, their durability, and their extraordinary cheapness.

For particulars of Exhibit see page 118.

MAIGNEN'S PATENT "FILTRE RAPIDE."

For the PURIFICATION and AERATION of WATER,

Maignen's Patent "Filtre Rapide" combines all the qualities required of a perfect water filter, and has none of the defects which render other filters worse than useless.

It has o ained the Highest Award at every Exhibition where it has been shown, and will be seen by the testimonials received that its practical work has proved fully equal to its theoretical and scientific excellence.

For particulars of Exhibit see page 97.

PATENT "GLACIER" WINDOW DECORATION.

M'CAW, STEVENSON & ORR,

The Patent "Glacier" Window Decoration has the merit of approaching real Stained Glass in colour and appearance more nearly than anything previously introduced, and is at the same time so easy to affix, that even children in using it produces excellent results with very slight instruction.

The invention has in a very short space of time found its way into nearly every quarter of the globe, and has everywhere received the favorable notice of the press.

For particulars of Exhibit see page 117.

Agents:—C. LAZARUS & CO.,
CALCUTTA.

T. E. THOMSON & CO.,

9, ESPLANADE ROW,

CALCUTTA.

Hardware and Metal Merchants, Contractors, Engineers, Brass Founders, and Smiths,

Represent at the Exhibition the following Firms—

The Albion Lamp Co.	...	...	*See page* 110
E. P. & W. Baldwin ...	...	...	do. 151
Baldwin Son & Co. ...	...	...	do. 105
John Brotherton ...	...	...	do. 205
George Butler & Co., Ld.	...	...	do. 105
Coventry Machinist Co., Ld.	...	...	do. 192
James Dixon and Sons	...	...	do. 105, 106
Hadley Bros. ...	...	...	do. 161, 164
Henry Loveridge & Co.	...	...	do. 105, 107
Milners Safe Co., Ld.	...	...	do. 205
Morris and Griffin ...	...	...	do. 145
Peyton and Peyton ...	...	...	do. 106
Richmond and Chandler	...	...	do. 235
Saynor Cooke and Ridal	...	...	do. 231
Sharp Stewart & Co.	...	...	do. 182
Silicate Carbon Filter Co.	...	...	do. 89
Robert Sorby and Sons	...	...	do. 182, 183
E. R. & F. Turner ...	...	...	do. 206

They have also a number of Exhibits on their own account :—
See pages 88, 147, 206, 236, and American Court.

PROTECTION FROM FIRE AND THIEVES.

MILNERS' SAFES,

BEST AND CHEAPEST

SAFEGUARD

AGAINST

FIRE AND THIEVES.

MILNERS' QUADRUPLE PATENT HOLDFAST AND FIRE RESISTING SAFES, CHESTS, STRONG ROOMS AND DOORS.

The well-known and well-proved Articles of universal public approval and adoption—200,000 of which keep the books and cash of Liverpool, Manchester, Glasgow, Bristol, Hull, Belfast, Calcutta, Alexandria, Bombay, Constantinople, Melbourne, Vienna, Paris, Amsterdam, &c., with all the REAL IMPROVEMENTS resulting from the large experience and practical acquaintance with their business of the Inventors, who have manufactured more Safes for the last twenty-five years than all the other Safe Makers together—have been Publicly Tested by scientific and practical men in all the large towns of the United Kingdom.

It is the DUTY of EVERY MAN to have a SAFE that can be relied upon to protect his Books and Documents from FIRE and his CASH and VALUABLES from THIEVES.

It is FALSE ECONOMY to be without; most serious loss is so frequently occasioned thereby (as the newspapers daily testify); BOOKS and PAPERS, which can never be replaced, destroyed by FIRE, and PLATE and JEWELLERY carried off by THIEVES.

MILNERS' SAFES are the BEST and CHFAPFST reliable SAFEGUARDS against BOTH.

Agents—T. E. THOMSON & CO.,

9, ESPLANADE ROW, CALCUTTA.

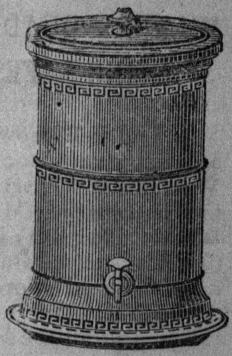
SILICATED CARBON FILTER CO.,

CHURCH ROAD, BATTERSEA, LONDON.

THE SILICATED CARBON FILTERS—

Are the most effective means known of purifying water for domestic use and the best safeguard against Cholera and Typhoid Fever.

They are so constructed that the solid matter deposited on the filtering medium can be easily cleansed away. They entirely remove from Water all Organic Matter and every trace of Lead, and for all Domestic purposes they may be said to render Water *absolutely pure.*



The following are abstracted from the opinions and tests of Medical and Scientific authorities :—

Dr. Divers, the *Lancet* Commissioner on Filters, tested the Silicated Carbon Filter with water mixed with a small quantity of Milk. The filtered water was perfectly bright, and remained sweet for weeks. This is considered one of the most severe tests to which a filter can be subjected.

Dr. Ruddock, in "The Stepping-Stone to Homœopathy," says :—"The Silicated Carbon Filters are the best we are acquainted with. Water passing through them is divested of any injurious substance, and may be said to be absolutely pure."

Calcutta Agents.—**T. E. THOMSON & CO.,**

9, ESPLANADE ROW.

COOKE & KELVEY,

DIAMOND AND PEARL MERCHANTS, DEALERS IN PRECIOUS STONES,

JEWELLERS AND DIAMOND WORKERS,

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Chronometer, Watch and Clock Makers and Opticians.

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WILLOW BANK BUILDINGS, THE MALL, SIMLA;

150, LEADENHALL STREET, LONDON, E.C.

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Bracelets, Bangles, Brooches, Pendants, Lockets, Necklets, Chains, Pencil Cases, Earrings, Charms.

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G. F. KELLNER & CO.,

WINE MERCHANTS,

CONTRACTORS,

REGIMENTAL AND GENERAL AGENTS.

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CALCUTTA.

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BORDEAUX.

VEUVE POMERY ET FILS,
REIMS.

PERINET ET FILS,
REIMS.

EWALD & CO.,
RUDESHEIM.

IGNAZ FLANDORFFER,
HUNGARY.

CHAMPION ET CIE,
REIMS.

RENAUDIN BOLLINGER & CO.,

AY-CHAMPAGNE.

And Agents for

MAX GREGER & CO.,

HUNGARY.

PERINET ET FILS, Reims, France (per London House, JOHN BARNET & SON, 36, Mark Lane, London). Champagne.

The Wines of this brand as exhibited have a high reputation in Europe, and are especially esteemed in England, where Messrs. PERINET ET FILS command a large Trade.

They are being introduced into Bengal and Central India under the auspices of Messrs. G. F. KELLNER & Co., 5, Bankshall Street, Calcutta.

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OPORTO, PORTUGAL.

SHIPPERS OF PORT.

MACKENZIE Y Ca.

Jerez de la Frontera.

SHIPPERS OF SPANISH WINES.

A. LALANDE & CO.,

BORDEAUX, FRANCE.

Shippers of Bordeaux Wines.

EWALD & CO.,

Rudesheim on the Rhine.

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SOLE AGENTS.

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CUTLER PALMER & CO.,

WINE MERCHANTS.

Established 1815.

CHIEF OFFICES:—London and Bordeaux.
BRANCHES & AGENCIES AT:—Calcutta, Bombay, Madras, Lahore, Karachi, Shanghai, Hong-Kong, Buenos Ayres, Rio de Janeiro, &c.
CALCUTTA OFFICE:—10 Hare Street.

Our Stand, which will be found in the British Court, shows a large and varied assortment of Wines, Spirits and Liqueurs. All our Wines are most carefully selected from the best growths, and our long standing in India (since 1842) and the popularity of our brand, speaks sufficiently for its excellence. Our stocks comprise all the different characters of wines of the various producing districts, and we exhibit specimens of most of the qualities we keep.

A large number of MESSES, CLUBS, &c., in India obtain their Wines and Spirits from us, and we also have the privilege of supplying the Steamers of the BRITISH INDIA STEAM NAVIGATION CO., the DUCAL LINE the ASIATIC STEAM NAVIGATION CO., and several other ships and steamers trading to this Port.

We are also Agents in India and China for several well-known Cognac and Champagne Houses, as also for some of the best Scotch and Irish Distilleries, particulars of which we give on opposite page.

We would be willing to undertake the Agency for any Australian Wine-growers, or others who are desirous of obtaining a market for their Wines in India. Having our own branches in all the Presidency towns, and trade correspondents in almost every important station in the country, and devoting ourselves, as we do, entirely to the Wine trade, we occupy an exceptional position by which all interests entrusted to us would no doubt be benefited.

Lists of all our Wines, Spirits, and Liqueurs, may be obtained at our offices, at the above address.

See page 184, Official Catalogue.

CUTLER PALMER & CO.

Are Agents in India for the following well-known Firms :—

Wachter & Co., Epernay.—Purveyors of Champagne to H. R. H. the Prince of Wales. Their "Royal Charter" brand as supplied to the Queen and H. R. H. is a grand Wine.—*See page 222, Official Catalogue.*

De St. Marceaux & Co., Reims.—This firm sends us a very agreeable light Dry Wine of medium price, but excellent quality.

Boutelleau & Co., Barbezieux, Cognac.—This firm stood second on the list of shippers of brandy for the 6 months ending 30th June 1873, having sent out from their vineyards no less than 108,872 GALLONS.

Bisquit Dubouche & Co., Jarnac, Cognac—Were also very large shippers for this same period, sending out some 100,640 GALLONS.

Tricoche & Co., Jarnac, Cognac.

Andrew Usher & Co., Old Vatted Glenlivet Whiskey.—This firm was awarded a Gold Medal for their Whiskies at the London Exhibition of 1873. Their "Special Reserve" Whisky, 6 years old, is very superior.—*See page 221, Official Catalogue.*

Richd. Mathews & Co., London—Carlton Whisky, 11 years old, as supplied to the Carlton Club.—*See page 218, Official Catalogue and Advertisement.*

Napier Johnstone & Co., London and Leith—Ship us an excellent Whisky in patent bottles, which are much less liable to breakage than the ordinary shaped bottles.

Dublin Whisky Distillery Co., Jones Road, Dublin—Irish Whisky distilled in pot stills, 3½ and 5½ years old, an excellent and pure spirit.

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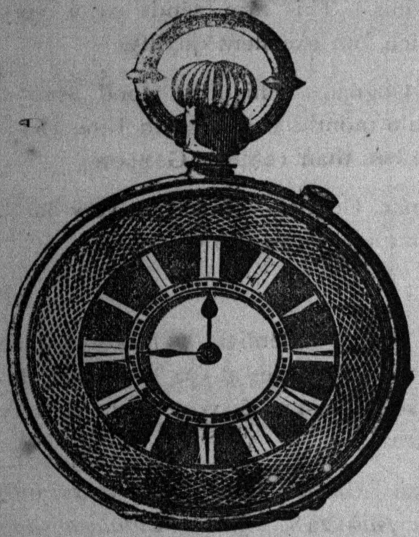
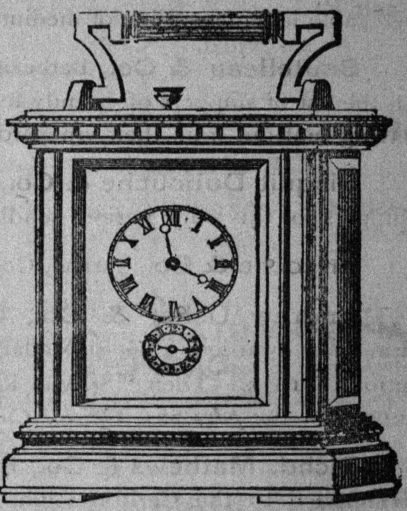
Watch Manufacturers and Jewellers,

LOCLE (SWITZERLAND),

CALCUTTA & BOMBAY.

Gold and Silver Watches. Carriage Clocks.





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GENT'S GOLD AND SILVER WATCHES.

DRAWING CARRIAGE AND OFFICE CLOCKS.

MUSICAL BOXES.

BINOCULAR AND FIELD GLASSES.

GOLD AND SILVER JEWELLERY.

Messrs. FAVRE, LEUBA & Co. having just renewed their Stock for the Season, solicit an early inspection.

FAVRE, LEUBA & CO.,

11, OLD COURT HOUSE STREET,

CALCUTTA.

TAPESTRY CARPETS.

Cash Rs. 1-8 to 2-4 per yard.

VELVET PILE CARPETS.

Cash Rs. 3-10 & Rs. 4-0 per yard.

BRUSSELS CARPETS.

Cash Rs. 3-0 and Rs. 4-8 per yard.

TAPESTRY STAIR CARPETS.

Cash Rs. 2-12 per yard.

BRUSSELS STAIR CARPETS.

Cash Rs. 6-8 per yard, 3 feet wide.

LEO FLOOR CLOTH.

Cash Rs. 2-4 per sq.-yard, 3, 6, and 12 feet wide.

13, Government Place,

FRANCIS HARRISON HATHAWAY & Co.,

FLOOR CLOTHS,

3, 6, and 12 feet wide,
Cash Rs. 1-12 per sq.-yard.

FLOOR CLOTHS,

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Cash Rs. 1-8 per yard.

LACE CURTAINS,

3 yards long.
Cash Rs. 3-12 per pair.

LACE CURTAINS,

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Cash Rs. 4-8 to 6-0 per pair.

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4 yards long.
Cash Rs. 5-8 to 12-0 per pair.

CRETONNES, REVERSIBLE.

Cash As. 11 to Rs. 1-2 per yd.

Calcutta.

THE "ENGLISHMAN."

THE OLDEST ESTABLISHED

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LARGEST DAILY PAPER IN INDIA.

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THE INDIAN DAILY NEWS:

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All the latest Telegraphic and other News from all parts of the world.

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WM. JNO. DARE,
General Manager.

ALLAHABAD,
"Pioneer" Office, December, 1883.

PUBLISHED

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[LATE INDIGO PLANTERS' GAZETTE]

AND

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Communications having reference to Subscriptions, Remittances, Changes of Address, Advertisements and business matters generally, should be addressed to

THE MANAGING AGENTS,

103, CLIVE STREET, CALCUTTA.

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BOOK AND TRACT SOCIETY,
C. V. E. SOCIETY,

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ESPECIALLY RELIGIOUS BOOKS IN INDIAN LANGUAGES.

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ESTABLISHED 1833.
Cabinet-Makers, Upholsterers, and Billiard Table Manufacturers.

HOUSES COMPLETELY FURNISHED.
FURNITURE DESIGNED AND MADE TO ORDER.
Estimates given for all kinds of Carpentering, Painting, Polishing, Gilding, and General Repairs.
MARBLE POLISHED, MOULDED AND CLEANED.
PICTURE FRAMES MADE.

J. M. EDMOND & Co., in soliciting a continuance of public patronage, beg to say they have ready for sale specimens of Ebonized and Gold Oxford Style of Fancy Chairs, and are prepared to execute ordersfor other Furnitures in the same style.

J. M. EDMOND & Co.'s New Show Room is now replete with New Heraldic Style of Dining-room Chairs and Rustic Chairs, Telescopic Dining Tables, with Patent Table Expanders, Ebonized and Gold Pompeii Style of Drawing-room Chiffonniers. Chamber Services, artistic newest design, from "Minton's." Hall Furniture, with Minton's Tiles inserted and Art Botanical leaves carved. Folding Triplicate Mirrors, and a variety of finished Furniture.

J. M. EDMOND & Co. beg to notify that they have enlarged their Workshops and have introduced Machinery, by which they can expedite the manufacture of Furniture. The Circular Saw Bench and Band Saw, also the Tenoning, Morticing and Boring Machines by *F. W. Reynolds*, are now in ful operation.

Orders Solicited.

THE HONG-KONG AND SHANGHAI BANKING CORPORATION.

Paid-up Capital ...	$ 5,000,000	
Instalment received on New Shares ...	926,765,62	
		$ 5,926,765.62
Reserve Fund	$ 2,500,000	
Instalments of Premium received on New Shares	698,336.43	
		$ 3,198,336.43

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The London and County Banking Company, Limited.

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5 per cent. per annum, on 12 months' notice of withdrawal.
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3 per cent. per annum, on 3 months' notice of withdrawal.

The Corporation grant drafts on and negotiate or collect Bills at any of their Branches and Agencies, they also issue *Circular notes* and Letters of credit negotiable in the principal cities of Europe, Asia, and America.

The Corporation receive for safe custody Indian Government Securities, Stocks, Shares, &c., of every description, undertake the purchase and sale of the same, and collect interest, dividends, pay and pension warrants for account of constituents.

CALCUTTA OFFICE, 2, MANGOE LANE. J. G. HODGSON, *Agent.*

Commercial Union Assurance Company,

LIFE—FIRE—MARINE.

Capital fully Subscribed	£ 2,500,000
" paid-up	£ 250,000
Life Funds in Special Trust for Life Policy-holders exceed ...	£ 809,000
Total Annual Premium Income over	£ 1,077,000
Invested Funds on 31st December 1882	£2,040,040-5-10

HEAD OFFICE—19-20, Cornhill, London.

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LIFE DEPARTMENT.

MARRIED WOMENS' PROPERTY ACT (1882),—Policies are issued to husbands for the benefit of their wives and children, thus creating a FAMILY SETTLEMENT without trouble, expense, stamp duty, or legal assistance, which creditors cannot touch.

THE LIFE FUNDS are invested in the names of Special Trustees as Security for Claims on this Branch, and Life Policy-holders possess, in addition, the Security of the Paid-up Capital, £250,000, and the fully subscribed and uncalled Capital of £2,250,000, and the other Funds of the Company.

THE ASSURED are wholly free from liability in respect of the engagements of the Company. THE EXPENSES OF MANAGEMENT, exclusive of commission, are limited by Deed of Settlement to a moderate percentage on the Premium Income. CLAIMS are paid one month after proof of death, at Calcutta in Rupees. *If, however, at the time of death, the English rate of premium is payable, the claim under the policy will be paid in England in Sterling, at the fixed exchange of two Shillings per Rupee.*

PREMIUMS for all classes of Life Assurance, reduced to the lowest rates compatible with perfect security to the Assured.

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UNDOUBTEED SECURITY guaranteed by a large and fully subscribed Capital. Mills, Bungalows, Presses, Tea Factories, and other buildings, or their contents Insured at favourable rates.

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RISKS undertaken to all parts of the World.

Prospectuses and all further information may be obtained on application to C. L. O'BRIEN,

29, DALHOUSIE SQUARE. *Acting Manager and Underwriter.*

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L. V. MITTER & CO.,

WHOLESALE & RETAIL

Homœopathic Chemists, Druggists, Booksellers and Publishers

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IMPORTERS FROM

LONDON, AMERICA, AND GERMANY.

The largest and the most varied stock in Calcutta of all Homœopathic Requisites of the very best of their kinds, for the use of Physicians, Families and Travellers.
Descriptive Catalogue free on application.

The "Gandy" Belt.

A Caution to Users of Belting.

THE WORLD WIDE SUCCESS OF

GANDY'S AMERICAN COTTON BELTING

HAS induced unprincipled people to imitate it, and in many instances to sell their spurious goods as and for those of the original inventor, patentee, and Sole maker, Maurice Gandy of London, Liverpool and Baltimore, U. S. A. This Belting is patenteed in India, and is showing at the Calcutta Exhibition. The original and only genuine article is stamped every five feet with the word "*Gandy.*"

SOLE AGENTS IN BENGAL:

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CIGAR MANUFACTURERS,

COCONADA, MADRAS PRESIDENCY.

"LUNKA" CIGARS AND CIGARETTES.

SNUFF.

TOBACCO IN LEAF AND CAKES.

(See Exhibits Page .)

COIR MATTING.

VOLKART BROTHERS,

Cochin, Malabar Coast, India.

Manufacturers of ALL kinds of COIR MATTING, such as, *Plain, Striped* and *Fancy Patterns*, ALSO *Coffee Matting, Door Hats, &c., &c.*

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Golden Leaf Smoking Mixtures			...	...	@ Rs	2	0	per lb.
Imperial	do.	do.	...	...	,,	1	8	,, ,,
Bright	do.	do.	...	...	,,	1	2	,, ,,
Dark	do.	do.	...	...	,,	0	14	,, ,,

RIFLE CAKE, CUT SMOKING MIXTURES.

Golden Leaf Rifle Cake			...	...	...	@ Rs	2	0 per lb.
Imperial	do.	do.	...	...	...	,,	1	8 ,, ,,
Bright	do.	do.	...	...	...	,,	1	2 ,, ,,
Dark	do.	do.	...	...	...	,,	0	14 ,, ,,

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No. 1, Packed in boxes of 100 with mouth-pieces
,, 2. do. do. 100 without mouth-pieces } Rs 20 per 1000
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"Belle of the East"	6" × 1½",6 to 1 lb.	...	@	As.	8 per lb.
"Our Flags"	6" × 1½",4 to 1 lb.	...		,,	8 ,, ,,

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Very old and mellow	Rs. 26

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Engineers' Tools made to any design.

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PROTECTED BY LETTERS PATENT.
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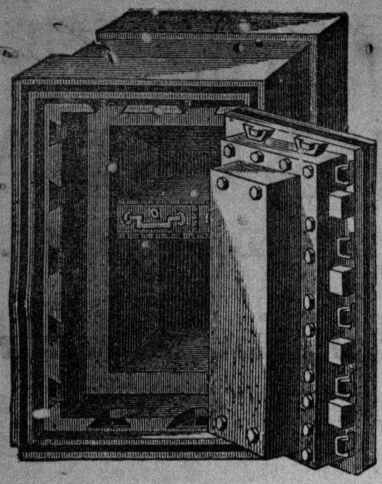

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ALEXANDRIA, *2nd August*, 1882.

To MILNERS' SAFE COMPANY, LIMITED, LONDON.

I hereby certify that your representative opened my Safe, manufactured by you, which, after eight days' exposure to the great fire of Alexandria, preserved every paper and book intact. I beg to thank you for the services of your representative, so promptly sent out to assist.—I am, Gentlemen, yours truly,

Pro ANT. M. RALLI,—C. F. MONSCAITI.

ADMINISTRATION OF LIGHTHOUSES AND OUTPORTS, CENTRAL OFFICE, No. 401.

ALEXANDRIA, *9th August*, 1882.

GENTLEMEN,—According to your request, I give you this letter to state that one of your Safes, which belongs to this Administration, placed in this Divan, was tampered with some time between the 10th and 14th of July last and attempted to be forced open. The handle was broken off and an attempt had been made to pick the lock.

As it contained a large sum of money, the carpenter and some men from H.M.S. "Helicon" were told off to open it, but although some hours were employed in working on it, it resisted so completely that it had eventually to be blown open by gun cotton.—I am, Gentlemen, your obedient servant,

MORICE PACHA,

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1st AWARD—First Grand Silver Medal to Samuel Clarke, London, for his Patent Pyramid Night Lamp Food Warmers.

2nd Award—First Grand Silver Medal to Samuel Clarke, London, for his Patent Pyramid Night Lights.

Prize Medal Awarded, London, 1873.

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SAMUEL CLARKE'S
Pyramid Nursery Lamps
AND
Food Warmers.

PATENT

PYRAMID NIGHT LAMP,

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PYRAMID NIGHT LIGHTS.

9 HOURS.

8 *Lights in a Box. Rs.* 1 *each Box.*

The PYRAMID NIGHT LAMPS render the burning a Night Light perfectly safe, entirely prevent FLICKERING (so objectionable in all Night Lights not burned in a lamp), are clean, portable, and render a Night Light useful for many purposes where they otherwise would not be.

The PYRAMID FOOD WARMERS, by their peculiar construction—the glass chimney conducting and concentrating heat to the bottom of the water vessel — furnish a larger amount of LIGHT and HEAT than any other lamp of the same class. Without SMOKE or SMELL.

The PYRAMID NIGHT LIGHTS have a patent prepared rush wick, are made much larger than any other Night Light, and give double the light; they are, therefore, very suitable for nursery lamps, lighting passages, lobbies, &c., and adaptable to many purposes for which the common Night Lights are useless.

No. 1 Holds Half-pint Food, besides Water, Rs. 3 4 0 each; No. 2 Holds Three-quarters Pint Food, besides Water, Rs. 3 12 0 each; No. 3 Holds One Pint Food besides Water, Rs. 4 8 0 each; Clarke's Pyramid Night Lamps, Rs. 1 0 0 each; Clarke's Pyramid Night Lights in Boxes containing Eight Lights, burn Nine Hours, Rs. 1 0 0 per box.

The Lamps have been under the patronage of the Royal and Imperial Families of England, Germany, and Russia, for the last thirty years. They are peculiarly suited for *India*, where it is so desirable to dispense with fire. All mothers find them invaluable both in the nursery and sick room.

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"CARLTON" WHISKEY.

Eleven Years Old and Five Years Old.

Agents for India—CUTLER, PALMER & CO.

These Grand Old WHISKEYS are blends of the Finest Highland Malt, and the same as supplied to the Carlton Club.

DURING recent years the art of distillation in Scotland has developed into several distinct and recognised systems; and at the present day there are four distinct classes of spirits distilled, viz., Highland Malt, Lowland Malt, Patent Malt, and Grain, in each of which there are various grades of quality.

The Whiskey distilled north of the Grampians is styled "Highland Whiskey," and that south of this hill boundary 'Lowland Whiskey." Highland Whiskey is the produce of numerous "sma' stills," worked for the most part upon the old original system of distillation, a process by which a much smaller extract is produced from a given quantity of grain as compared with the system of distillation prosecuted throughout the Lowlands of Scotland. Highland Whiskey is obtained from fine barley, fully malted, and from clear, soft, delicious mountain water. The barley is kiln-dried by peat fuel, which is cut from the mossy peats of the mountains, the whole process of distillation being conducted on a system embodying all that is natural and inartificial. Hence the marked superiority in character, style, and flavour of this highly appreciated beverage.

Lowland Malt is distilled on a much more extended scale. The system embraces all that science can give to produce quantity at the least possible cost. The grain used is usually of inferior quality to that used in Highland stills, and the process is one of hurry and forcing. The quality and value of Lowland malt is, therefore, far short of Highland Whiskey; and the produce of such Lowland stills may be recognised by its rough, plain, general character, without the higher and delicate aroma of the Highland.

Patent Malt and Grain cannot be justly termed "Whiskey." These can be distilled from almost any unmalted grain and from other glutinous substances, and are distilled in large quantities for rectifying and mixing purposes. They fall short in value of the Lowland Malt.

From their much lower price, and from their greater nearness to the principal ports of shipment, Grain and Patent Malt, or blends of these and Lowland Malt, have hitherto, almost without exception, been exported to the Colonies, &c.

Having, after our research and experiment, satisfied ourselves that Highland Malt Whiskey is the "original Scotch Whiskey," and the highest type of alcohol, we set ourselves to ascertain the condition under which it could be presented to the public in its best form; and we found that the connoisseurs of many years ago, recognising the exaggerated characteristics possessed by all the higher brands of real Mountain Dew, discovered that the judicious blending of the produce of various "sma' stills" secured a more perfect and palatable character to the spirits so treated, one strongly exaggerated character being met by others of a like, though opposite nature, and the result being complete harmony, softness, fulness, and delicacy of style. We also found that, after selecting a blend of these "sma' stills" Highland Whiskeys, the next essential requirement was age. No artificial process of mellowing, or any system of double distillation, can give to the Whiskey the characteristics developed by time. This fact can be better understood when we explain that the produce of some distilleries mature in a shorter space of time than others, but all require several years to develop those delicate and beautiful ethers (or aroma) in which maturity consists.

The leading members of the Medical Profession are now unanimous in recommending High-Class Whiskey, naturally and thoroughly matured, as the most wholesome stimulant; and its value in this respect is daily becoming more widely understood, and its use increasing in a corresponding degree.

With these remarks, we have pleasure in announcing that we hold in bond, in London and Inverness, a very large stock of the produce of the most famed "sma' stills" in the Highlands of Scotland, blended and matured. These Whiskeys are matured in sherrywood, and have a yellowish or straw-coloured tinge, and are guaranteed entirely free from fusel oil and other noxious impurities, the natural attendants of imperfectly produced spirits.

We have resolved to identify ourselves with genuine Highland Malt Whiskey only; to select, blend, and store the same under a system that will enable us to ship this article of the highest possible type, uniform in style, and thoroughly matured.

The "Carlton" Whiskey has a great reputation in the principal London Club Houses; it is of rare quality, age, and excellence.

N.B.—When purchasing the "Carlton" Whiskeys, see that each Cork is branded with the "Trade Mark," each Bottle capsuled, and that neither Cork nor Capsule has been tampered with.

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GUARANTEED

98 per cent. of Carbonate of Soda.

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Charlton **SILICATE OIL** *Paint.*

Hard drying. Fast in Colour. In packages of all sizes, and ready mixed for use if required.

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In liquid form ready for the brush.

The best preservative for all exposed iron work, and also in great request for all kinds of decorative work.

Varnishes, Stains and Painters' Materials of every description.

The Company will be glad to supply descriptive books, pattern cards, testimonials, and directions for using their manufactures, and buyers are cautioned to see that every package bears the trade mark as above.

The Company have received first-class prizes at all the important Exhibitions during the last ten years.

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DYSENTERY, DIARRHŒA, CHOLERA, FEVER, AGUE, ETC.

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CHLORODYNE,

THE ORIGINAL AND ONLY TRUE,

Is allowed to be the greatest discovery of the present century, and is largely employed by the most eminent Medical Men, in hospital and private practice, in all parts of the world, and is justly considered to be a remedy of intrinsic value, and of varied adaptability, possessing most valuable properties, and producing curative effects quite unequalled in the whole Materia Medica.

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FREEMAN'S CHLORODYNE effectually checks and arrests those too often fatal diseases—Diphtheria, Fever, Croup, and Ague.

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FREEMAN'S CHLORODYNE is the best remedy known for Coughs, Consumption, Bronchitis, and Asthma.

FREEMAN'S CHLORODYNE rapidly relieves pain from whatever cause, allays the irritation of Fever, soothes the system under exhausting disease, and gives refreshing sleep without the production of any of the unpleasant feelings so commonly arising from the use of opiates.

Mr. R. FREEMAN, HEAD QUARTER STAFF, CABUL, *May 31st*, 1880.

DEAR SIR,—It is with much pleasure that I am able to state that your Chlorodyne has been of special service to me in alleviating the wearisome spasms of Asthma, which is here existent in an aggravated form; many of my patients now come and beg me to give them that medicine which always relieves them, and which I need hardly say is your Chlorodyne.

Yours faithfully, CHARLES W. OWEN, L.R.C.P. Lond., M.R.C.S. Eng.,
The Divisional Head Quarter Staff and Civil Surgeon, Cabul.

"The Times," August 13th, 1877.

From our own Correspondent with the Russian Army.

OKOUM, *July 25th*, 1877.

The want of sanitary arrangements in the Russian camp was dreadful, and had we remained there a few weeks longer, dysentery and typhoid fever would have played more havoc in our ranks than the bombs of the Turks. I myself acquired an uncnviable reputation as a doctor, owing to my being provided with a small bottle of CHLORODYNE, with which I EFFECTED MIRACULOUS CURES.

The Right Honourable EARL RUSSELL communicated to the Royal College of Physicians of London, and to Mr. R. FREEMAN, the Inventor, that he had received information from Acting Consul WEBB, at Manilla, to the effect that the only remedy of any service in Cholera was Chlorodyne.—*See "Lancet," 31st December*, 1864.

From Mons. BONJOUR BARTHELEMY, *Delegate of the Society for the Relief of the Wounded, Founder of the Catholic Committee, Decorated with the Cross of the Convention of Geneva.*

Le Caillon près Meung-sur-Loire, France, *June 18th*, 1873.

I hereby attest that the Chlorodyne manufactured by RICHARD FREEMAN, Pharmacist, of London, is the best remedy against Cholera and Dysentery, and further affirm, as Director of the Anglo-American Ambulances and of French prisoners during the War from 1870 to 1871, that a large number of those under my care were attacked with Dysentery, and that by means of his Chlorodyne they were in a few days perfectly cured. It was also largely used by the Medical Staff with the same success.

(Signed) BONJOUR BARTHELEMY.

IMPORTANT CAUTION.—FOUR CHANCERY SUITS terminated in favour of FREEMAN'S ORIGINAL CHLORODYNE.

LORD CHANCELLOR SELBORNE'S Judgment in "The Chlorodyne Suit," April 28th, 1873, and that of the LORDS JUSTICES of Appeal, July 23, 1873, condemned the proceedings of Dr. John Collis Browne and J. T. Davenport and decreed them *to pay all costs.*

Manufactured by the sole Inventor, RICHARD FREEMAN, Pharmacist, 70, Kennington Park Road, London, S.E.

Sold by Chemists and Patent Medicine Dealers in all parts of the world, in bottles, 1s. 1½d.; 2-oz. 2s 9d; 4-oz., 4s. 6d.; half-pints, 11s.; and pints, 20s. each.

Purchasers are cautioned not to have palmed upon them any substitute. There are other articles bearing the name of Chlorodyne, but quite devoid of its wonderful effects. See that the Trade Mark, "The Elephant," is on the wrapper, &c., and that the words Freeman's Original Chlorodyne *are engraved on the Government Stamp, which is the only true Chlorodyne.*

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For Prickly Heat, Cholera, Fevers, Headache, &c.

The testimony of Medical Gentlemen has been unqualified in praise of

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PYRETIC SALINE,

As possessing elements most essential for the restoration and maintenance of health with perfect vigour of body and mind.

It is Effervescing and Tasteless, forming a most Invigorating, Vitalising, and Refreshing Beverage.

Gives instant relief in Headache, Sea or Bilious Sickness, Constipation, Indigestion, Lassitude, Heartburn, and Feverish Colds; prevents and quickly cures the worst forms of Typhus, Scarlet, Jungle, and other Fevers, Smallpox, Measles, and Eruptive or Skin Complaints, and various other altered conditions of the Blood.

The Cure for Cholera and Preventive of Dysentery.

DR. PROUT.—"Unfolding germs of immense benefit to mankind."

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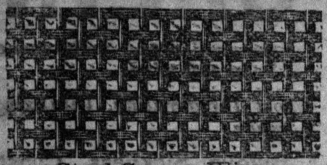

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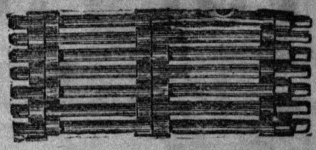

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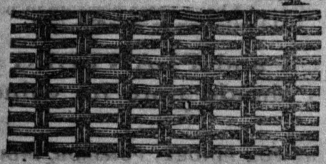

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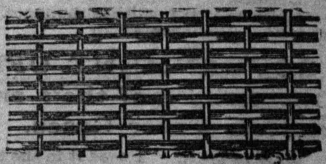

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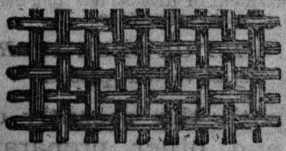
In Iron, Steel, Zinc, Copper and Fine Metals, **for Cylinder Covers, for Sorters, Tryers,** and Engineering purposes.



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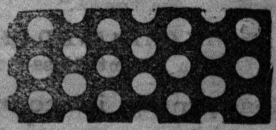

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In various sized and shaped holes.

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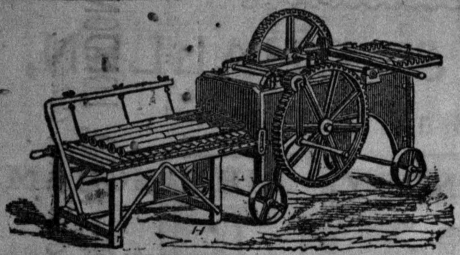

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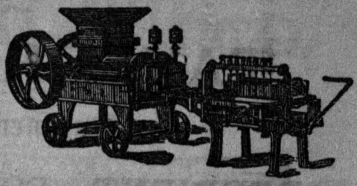

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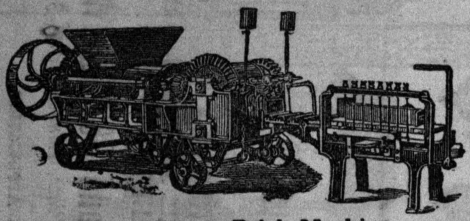

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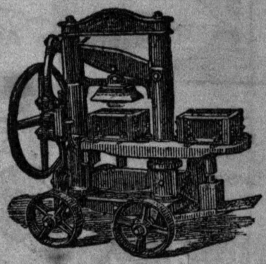

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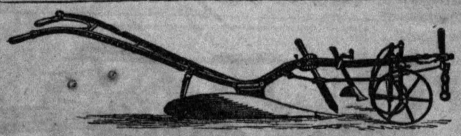

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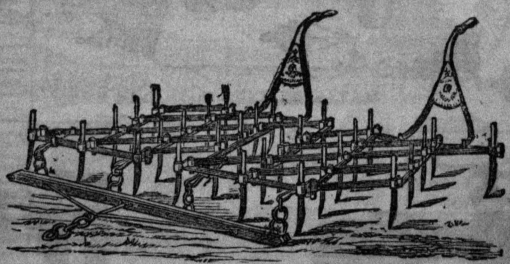
Ploughs made for all countries.

Royal Agricultu. Society of England's First Prize Handled Drag Harrows.



Handled Drag Harrows.

These Harrows are the best for breaking up stiff land and for working fallows to a fine tilth.

E. PAGE & CO.,

Makers, Victoria and Bedford Ironworks,

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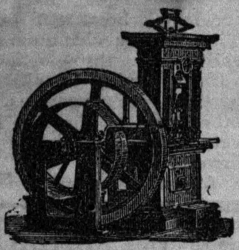

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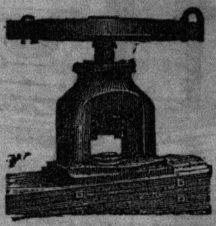

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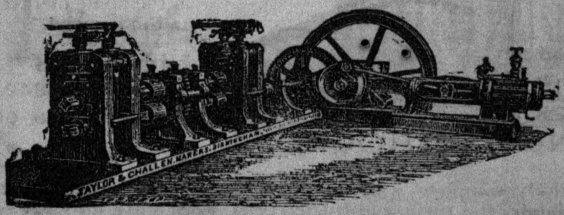

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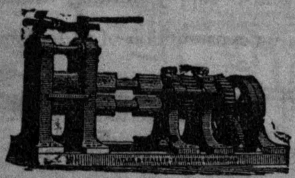

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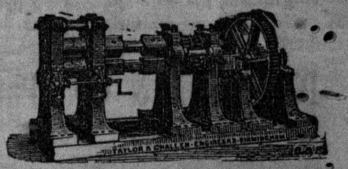

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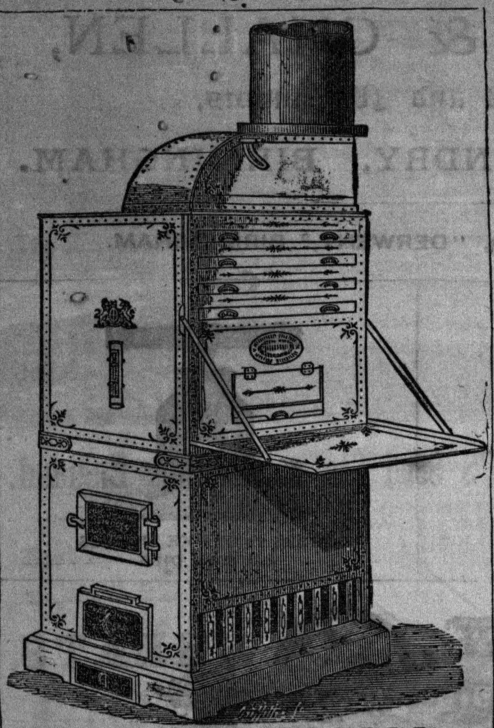

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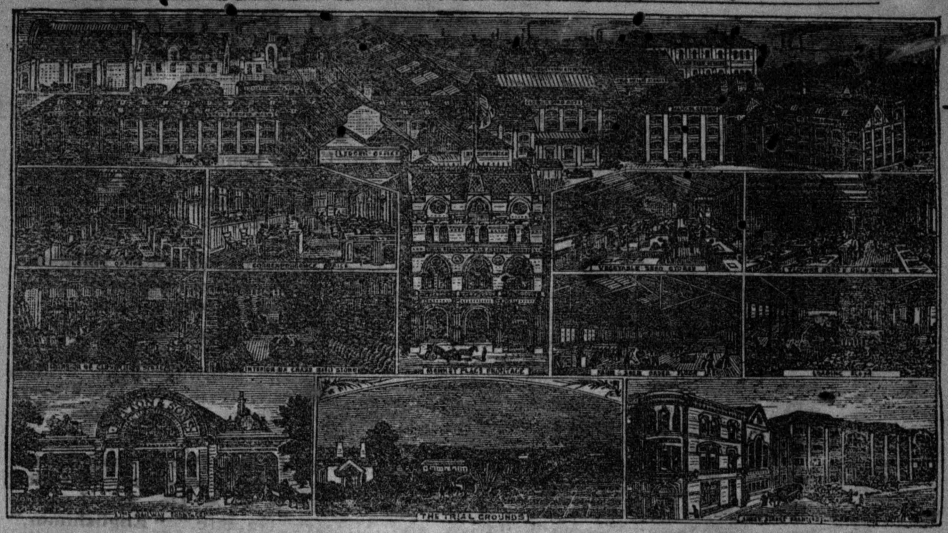
A stock of "Sirocco" renewal parts is now kept in Calcutta, and may be obtained there from the Planters' Stores and Agency Company, Limited.



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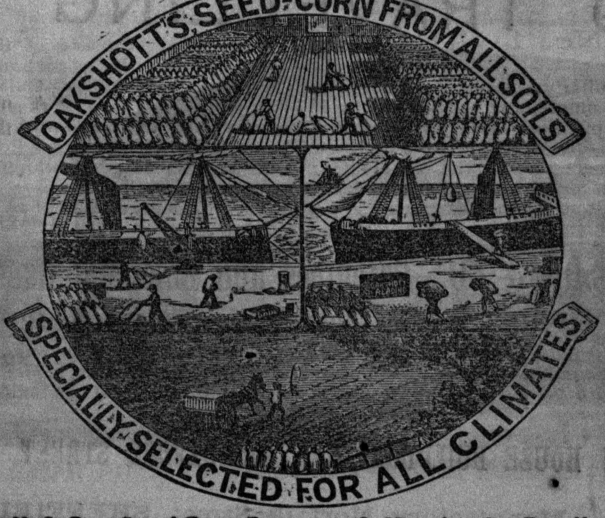

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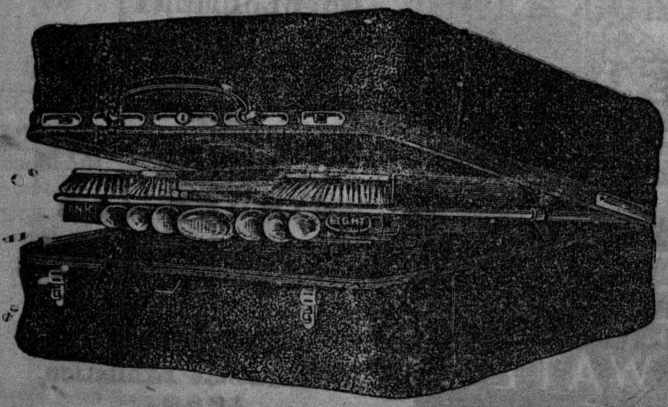

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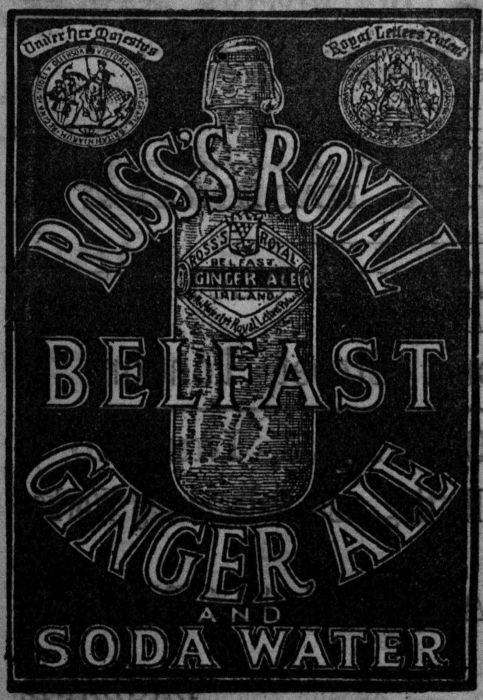

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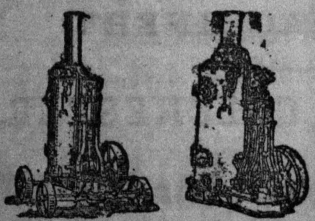

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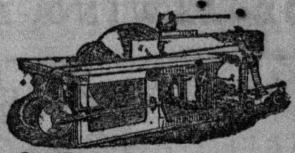

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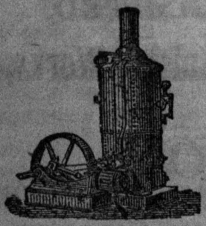

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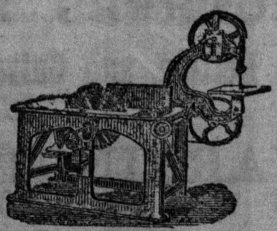

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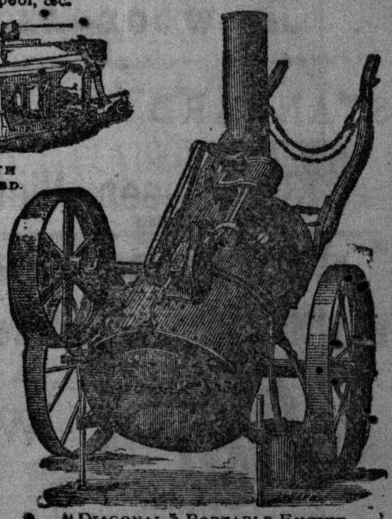

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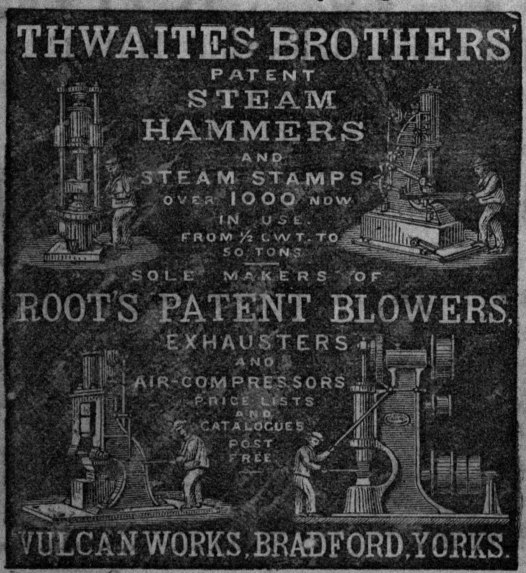

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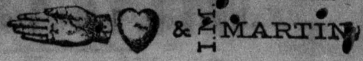

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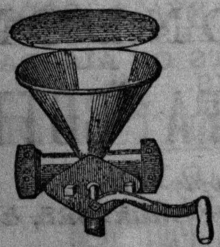

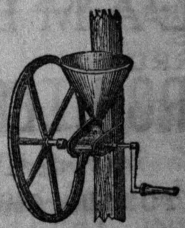

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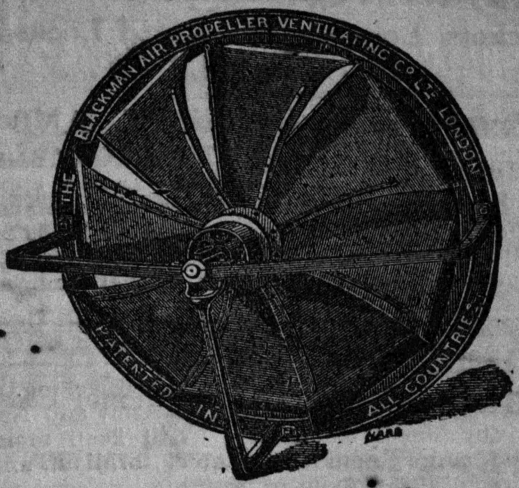

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59, *FORE STREET,* & 17, *AUSTIN FRIARS,*

LONDON.

REFERENCE: MESSRS. MACKINNON, MACKENZIE & CO., Calcutta.

(SEE EXHIBIT IN BRITISH SECTION.)

NUBIAN

LIQUID WATERPROOF

Blacking.

LARGEST SALE IN THE WORLD.

NUBIAN **THE ORIGINAL AND SELF-SHINING WATERPROOF BLACKING.**

NO BRUSHES REQUIRED. Easily applied with sponge attached to cork. Gives an even and brilliant polish which will keep for a week in all kinds of weather. Cheapest, cleanest, and best for boots, shoes, harness, military accoutrements, patent leather, and all leather goods.

NUBIAN **OIL PASTE BLACKING.** In tin boxes.

Well known as Army Blacking. Same as we now supply to Her Majesty's Army and Navy. Prepared by steam machinery. Will keep moist in any climate, and is noted for a quick, brilliant, and durable polish, and little labour of brushing.

NUBIAN **LIQUID JAPAN BLACKING.**

In stone jars. Specially prepared by new process, causing the ingredients to thoroughly amalgamate, giving a polish equal to patent leather. Will keep in any climate. Cheapest and best.

NUBIAN **LADIES' PET BOOT POLISH.**

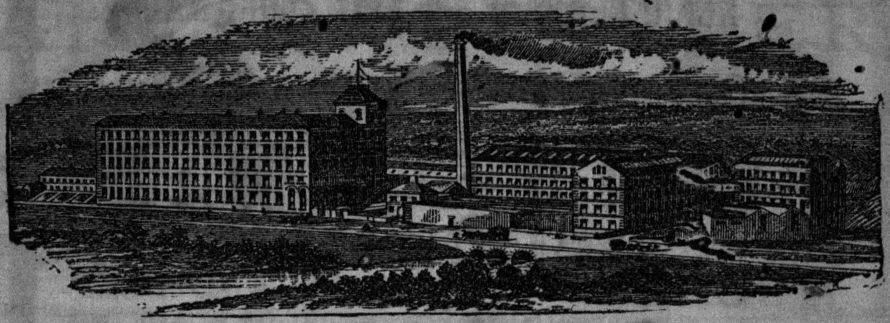
Imparts a JET BLACK gloss to ladies' and children's boots, shoes, and leather goods, will not crack, peel, or harden the leather, or soil the skirts when wet. Easily applied with sponge attached to cork.

NUBIAN **MANUFACTURING COMPANY,**
Smithfield Chemical Works,
8 & 9, Hosier Lane, LONDON, E.C.

Our goods are sold by dealers throughout the World; send for circular of specialities.

SEE EXHIBIT IN BRITISH SECTION.

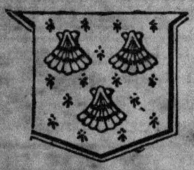
JOHN DEWHURST & SONS,



Belle Vue Mills, SKIPTON.

DEWHURST'S

SEWING

TRADE  MARK.

COTTONS

ARE THE BEST FOR MACHINE OR HAND USE.

These Cottons have been Awarded **PRIZE MEDALS FOR GENERAL EXCELLENCE** of quality wherever exhibited.

Latest Award: **GOLD MEDAL, AMSTERDAM INTERNATIONAL EXHIBITION, 1883.**

KENNALL GUNPOWDER COMPANY,

KENNALL VALE, PENRYN, CORNWALL,

AND

35, Queen Victoria Street, London,

EXHIBIT

GUNPOWDER

IN ITS SEVERAL STAGES OF MANUFACTURE.

TRADE

MARK.

REGISTERED

The Gunpowders of this Company, the various stages of manufacture of which are now shown, are intended for **SPORTING, MILITARY, and BLASTING** purposes.

The Exhibitors, who have been established since 1811, are **CONTRACTORS TO HER MAJESTY'S GOVERNMENT**, and their Blasting Powder is largely used in all parts of the world.

Their Sporting Powders are recommended for their excellent quality and reasonable prices, comparing favourably in these points with other Powders of the same class.

Their **"EMPRESS"** Powder is especially recommended for use in India.

Amongst the forms in which the Powder manufactured by this Company are put up, may be mentioned **Patent Compressed Blasting Cartridges and Blasting Powder.**

In the preparation of these Cartridges safety, economy, great strength, convenience of form, and freedom from unwholesome gases, are the points receiving attention. By these means they are rendered specially adapted for Mining and Quarrying purposes.

The Company received the highest Award (viz., Two Silver Medals) at Melbourne International Exhibition of 1880.

NOTE.—In connection with the Company's Trade Mark, of which an illustration is given above, it should be observed that the triangle enclosing the three centre balls on the coat of arms (that of Cornwall) is **printed in Red.**

(SEE EXHIBIT IN BRITISH SECTION.)

EYRE & SPOTTISWOODE.

Her Majestys Printers.

MERCHANTS AND SHIPPERS,

LONDON.

MESSRS. EYRE & SPOTTISWOODE take this opportunity of drawing the attention of Merchants to the numerous variety of goods they are exhibiting at the Calcutta Exhibition, and append here a list of the manufacturers whose Exhibits they have undertaken to show in their Court on the south side of the Imperial Museum Quadramgle. Messrs. EYRE & SPOTTISWOODE are prepared to accept indents at the lowest rates of commission for these and any other goods and guarantee to obtain such goods at the lowest manufacturers terms. For the goods of their own manufacture they need say little, the quality of these being already of world-wide renown.

On the reverse side of this page will be found the list of manufacturers whose exhibits *are shewn* in Messrs. EYRE & SPOTTISWOODE'S Court.

Against the name of each manufacturer the letter of the Section and the number of the page in the Catalogue will be found.

THE EXHIBITS SHOWN BY

EYRE AND SPOTTISWOODE,

Her Majesty's Printers,

OCCUPY THE WHOLE OF THE SOUTH-SIDE AND VERANDAHS

OF THE MUSEUM QUADRANGLE.

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